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ABSTRACT

The handbook defines skills which are critical to elementary school students in acquiring and processing information related to social studies. It also suggests teaching strategies for use by elementary school teachers as they develop social studies and/or citizenship education programs. In addition, the document should be helpful to preservice teachers because of its comprehensive explanations of developmental background of various skills. Three broad categories of skills are dealt with: (1) information acquisition skills (direct observation, using questions, using prepared sources), (2) information processing skills (comparing, conceptualizing, hypothesizing), and (3) self-management skills (decreasing stereotypic, egocentric, and ethnocentric perceptions). For each category, a definition is presented, followed by skills, utility, lesson objectives, and long range objectives. Lesson objectives are grouped in sets of three according to appropriateness for various grade levels. Activities involve children in map and globe skills, grouping objects, and describing concepts (grades K-3); discussing information gleaned from stories and writing statements about testing various hypotheses (grades 4-5); and generating hypotheses from information presented and creating newspaper stories about suggested topics (grades 5-6). A bibliography of resources related to skill development and social studies concludes the document. (DB)

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SKILL DEVELOPMENT IN ELEMENTARY SOCIAL STUDIES: A NEW PERSPECTIVE

by

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Preface

The current national emphasis on getting "back to basics" has had the effect, in many school systems, of cutting still further into the already inadequate time devoted to teaching social studies in the elementary classroom.

While the authors of this paper do not deny that children need to be taught to read, write, and compute, they argue the importance of teaching skills that are even more "basic" in our fast-moving, fast-changing world--skills in acquiring and processing information and in what they term "self-management."

The development of such skills obviously is an appropriate part of the social studies curriculum, particularly in view of the commitment of social studies educators to developing the tools of responsible citizenship. All too often, however, these skills are taught too late. A child who has not learned to efficiently acquire and process information, the authors point out, is ill equipped to learn reading, writing, and arithmetic. A child who has not learned to effectively handle conflict, change, and diversity may not be able to function at all--in school, at home, or in society.

The authors go beyond making a good case for their position: they have produced a practical handbook that both defines critical skills and suggests effective teaching strategies and learning experiences for the elementary classroom. Inservice teachers will find many useful ideas here to reproduce or adapt, and preservice teachers should find the book especially helpful because of its comprehensive explanations of developmental background. We hope that it will prove to be a valuable addition to the ERIC/ChESS publications dealing with teaching strategies and content in the precollege social studies curriculum.

"A free society committed to the principles of democratic stewardship has a special obligation to equip its young citizens with tools for self-renewal and lifelong learning," the authors believe. We heartily agree.

Irving Morrissett
Director, ERIC/ChESS
Executive Director, SSEC

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Introduction

Once upon a time, so the sages tell us, young human beings could acquire all the knowledge and skills they would need for a lifetime in a few brief years of instruction at the feet of the masters. The bows they carved there were essentially the same ones they would use as aged hunters and in turn teach the young ones to carve and shoot. The rituals learned there kept their potency throughout a lifetime. The secrets of nature were effectively exploited in the same manner until aging bodies could no longer function.

"Once upon a time" is truly a magical period lost in the shrouds of human history, a time we can only dream of--perhaps long for but, alas, never experience. In contrast, as the sages are equally fond of telling us, today we live in a time of rapid change. All human experience is accelerating at a tremendous rate. We are creating more and increasingly complex machines, generating more knowledge, developing more-complex institutions, meeting more people in the course of a lifetime, seeing more of the world, and increasing our numbers at a greater rate than ever before.

In order to function in a world characterized by rapid change and increasing complexity, children must be prepared for a lifetime of learning. One of the more literate treatises on this theme was written over a decade ago by John Wagner (1963), so it is by no means a new insight. But the validity of the argument is today being felt by people in all walks of life as individual after individual is confronted, often very painfully, by the obsolescence of his/her own knowledge and skills. As new machines are installed, factory workers either learn new procedures or lose their jobs. Although public debates are held about nuclear plant installations, many people can neither join the debate nor appreciate the arguments. They don't know the vocabulary, much less the ecological principles on which the issues rest. Worse, they don't know where or how to learn these things.

Many of the ideas presented in this paper were formulated and developed by the authors during their work as consultants for *Windows on Our World*, a K-6 elementary social studies program published by Houghton Mifflin in 1976.

A free society committed to the principles of democratic stewardship has a special obligation to equip its young citizens with tools for self-renewal and lifelong learning. This is why we have chosen to treat the skills of acquiring and processing information. They are basic tools for continuing education and effective participation in a free society. Further, they are tools that help children expand their capacities not only to adjust to their environments but also to improve those environments. The self-management skills treated here are timeless--they are basic equipment for interacting effectively and humanely with other human beings who are caught up in the challenging world of today and tomorrow.

It may be sufficient to proceed with this discussion using the broad, intuitively held conception of the term *skills*. Or we can, as rigorous scientists insist, explicitly offer an operational definition--the definition of the term we are operating with in this case. While we will not give an operational definition in the strictest sense, we will share one definition of skills that is particularly useful in coming to grips with some of the issues related to skills and skill development in elementary schools.

Introducing a discussion of process education which centers on the development of certain skills, Richard E. Ripple of the Eastern Regional Institute for Education offers this definition:

> Skills are considered to be behavioral control systems that incorporate, select, and direct different response patterns and attitudinal tendencies together with behavioral capabilities in a series of actions toward some goal. Skills are plans, programs for actions, means by which behavior is organized and directed toward goal attainment. They are organized behavior sequences directed toward the end of rendering one's experience comprehensible and, in turn, to solve one's problems and meet one's needs. Collectively, skills comprise the process of meaning-making. (Ripple n.d., p. 2)

Here Ripple, like a connoisseur of fine gems, has taken the concept *skills* and turned it slowly and carefully in a brilliant analytic beam, pointing out the many exquisitely cut facets as each is caught in the light. Such an exercise is useful in calling attention to the elements which, when fused into the whole, lose a certain degree of potency. The major thing to keep in mind is that *skills are a means to an end, not an end in themselves*. They are the basic tools of learning; as Ripple put

it, they make "one's experience comprehensible and, in turn, . . . solve one's problems and meet one's needs."

If skills are the basic tools of learning, it is imperative that skill development begin early in life. But there is another reason why skill development should start early, and that is because skills are acquired, retained, and refined only through practice. The more practice a person has applying a skill, the more proficient he/she will become in that skill. The more complex the skill, the more practice needed to acquire it and to retain it. The emphasis in elementary schools on the tool subjects of reading and mathematics undoubtedly grows out of a recognition that the skills associated with these subjects are vital tools and that they require practice.

This recognition also accounts for the fact that the so-called content subjects, such as science and social studies, have typically received little time in the elementary school instructional schedule. The current concern about declining test scores in reading and math has often resulted in even less time being spent on content subjects.

The commitment to giving children basic literacy skills cannot be faulted; indeed, it is shared by all educators. Good teachers have always used the content subjects to reinforce and extend basic skills. However, now they are getting more help from curriculum developers and subject-area specialists. Strategies for reading and computation development are being integrated into instructional materials in these subjects. The professional literature is focusing on these problems; for example, the National Council for the Social Studies recently published an excellent guide to teaching reading in the social studies (Mahoney 1977). Other resources for teaching reading in the social studies are given in the reference and sources sections of this paper.

A commitment to developing basic literacy skills should not preclude a commitment to teaching other skills. For it takes more than the abilities to decode and encode the written word and manipulate numbers to make a truly literate, fully functioning human being. To put it another, perhaps more familiar, way--it takes more than reading, 'riting, and 'rithmatic skills to render "one's experience comprehensible . . . solve one's problems and meet one's needs," to make meaning out of one's

existence. And it is in the so-called content subjects that these other essential skills traditionally have been taught.

The purpose of this paper is to explore some of the possibilities for skill development in elementary social studies. It is hoped that this exploration will give teachers and other curriculum decision makers a few new insights into the potential of social studies for facilitating crucial skill development in addition to some functional guidelines for pursuing that potential.

A cursory overview of the literature reveals that there is no consensus about what these skills might be or, at least, about how to label them. The Eastern Regional Institute for Education's categories of skills include: attending and orienting, flexibility and divergence, classification, translation and transformation, and problem solving. Subsumed are basic tool skills (reading, writing, listening, speaking), the analytic thinking skills of scientific inquiry (inferring, hypothesizing), and affective and interpersonal skills.

The classic reference for skill development in social studies for many years has been the 33rd Yearbook of the National Council for the Social Studies, edited by Helen McCracken Carpenter (1963). Chapters in this text focus on critical thinking, locating and gathering information, organizing and evaluating information, reading, writing, speaking and listening, developing a sense of place and space, developing a sense of time and chronology, interpreting material presented in graphic form, and developing competence in group participation and human relations. An appendix to this book includes an often-cited chart that breaks out skills in a way different from the chapter treatments.

The 47th Yearbook of the Council, titled *Developing Decision-Making Skills* (Kurfman 1977), argues that developing decision-making skills is the "major purpose" of social studies. Chapters in this text focus on the broad range of skills utilized in the decision-making process.

Chapin and Gross (1973) use still another set of skills or skill terms. A publication of the New York State Education Department, *Manual of Exercises for Developing Social Studies Skills* (Feuerman et al. 1974), identifies these three "skill areas": investigation of visual materials (pictures, graphs, cartoons), critical thinking, and value processes. In

each of the skill areas, students are directed to perform a set of operations. They *identify* elements (What do you see here?), *note relationships* (Which is bigger? How is what that person is doing affecting the others?), *analyze* (On the basis of the information given here, what occurs in an economic exchange?), *apply* (In what other situations could this happen?), and *personalize* (How do *you* feel about it?).

These brief descriptions of the skills identified in the cited materials should both demonstrate the wide range of skills treated and suggest what these materials--any of which would be useful extensions of this paper--offer the interested reader. Perhaps just as importantly, this overview demonstrates that the social studies profession is dedicated to skill development within this content area. Resources such as the ones cited here have guided curriculum development and teacher education for many years. The potential for skill development cannot be fully exploited unless more time is given to the teaching of social studies in the elementary classroom.

The set of skill categories developed in this paper is similar to, and at the same time different from, those given in the cited sources. They are, we feel, skills that will be developed by putting good social studies materials in the hands of good teachers. The goal of providing what earlier were termed "functional guidelines" for practitioners further helped determine both the skill categories and development procedures we suggest. The intent is to treat *a few critical skills*, slotted in functionally logical categories, which can be remembered easily and utilized in evaluating, strengthening, and developing curriculum materials and teaching strategies in social studies.

Skills emphasized here are subsumed under three broad categories: information-acquisition skills, information-processing skills, and a category labeled, for want of a better term, self-management skills. Each of these broad categories subsumes specific subtypes of skills. For example, the category labeled information-acquisition skills subsumes the skills of using direct observation, using questions and interviewing, and using prepared sources. And these second-level skills subsume still other skills. Although the skills are treated separately in this paper,

their attributes overlap, in many cases. Complementarity and interdependence among skills exists--and, indeed, it should. Separate treatment here, however, allows for clear understanding of a skill's utility as well as of its defining characteristics; thus skills and subsets of skills are treated independently.

The procedure for treating these skills is essentially the same for each category. The broad categories (information-acquisition skills, information-processing skills, and self-management skills) are introduced briefly and delineated; the specific skills subsumed by each broad category are then given and explicated, and the utility of each is discussed. Finally, long-range objectives, together with specific subsumed lesson objectives, are presented for each skill.

The lesson objectives are grouped in sets of three according to increasing difficulty; taken together, each set offers a variety of grade-level approaches to a specified long-range objective. The lesson objectives coded "a" are appropriate for very young children--in kindergarten, first, or second grade; "b" level objectives are for children in the third or fourth grade; and those labeled "c" are for children in the fifth or sixth grade. The lesson objectives in each set increase in complexity in one or more of the following ways: they move from using concrete data to using abstract data; they require children to process an increasingly larger number of variables; they require children to perform increasingly complicated tasks; they require children to perform increasingly larger numbers of tasks.

Each lesson objective describes in detail the conditions under which children can be expected to perform the specified behavior. Detailed descriptions have been provided in an attempt to help teachers envision the kinds of learning strategies that can be devised to work toward the objectives.

Information-Acquisition Skills

Children and adults acquire information in three basic ways: (a) by making direct observations (using their senses to acquire information about the immediate observable environment), (b) by asking questions (ranging from a five-year-old's query, "How does this work?," to a fifth grader's interview with the principal, to a complex survey instrument prepared by social scientists), and (c) by using prepared sources (media prepared for the purpose of communicating information, including globes, maps, graphs, tables, pictures, essays, case studies, reference books, and audiovisual materials).

The need to use these information-acquisition methods skillfully becomes more apparent when we notice our own related inadequacies. In a beautiful natural setting our sensory awareness may be limited to only a few of the vast details we might observe. We leave the scene knowing that many of the sights, sounds, smells, and things to touch were never experienced. Or perhaps we find ourselves at a loss when we lack the ability to use certain prepared sources (a computer printout, a complicated diagram, a satellite photo image). There is little doubt about the necessity to help children develop skillful behavior in order to increase their capacity to acquire information. A broad goal in this section is to suggest ways in which children can become familiar with the wide range of information sources available to them and provide ideas on how they can use the sources productively and comfortably.*

The focus here is primarily on the skills needed to *extract* information that is displayed (the immediate observable environment, a photograph, a map) or stated (the answer to a question, a narrative passage). This treatment allows for explanation of each skill and subskill and applications for social studies classrooms. It is important to recognize, however, that mere extraction of information is not regarded as an especially useful end in itself. Rather, information acquired should be used in some purposive manner leading to greater understanding of a

*For an expanded discussion on developing information-acquisition skills, including detailed instructional experiences and sequencing considerations, see Anderson and Winston (1977).

situation, an entity, a problem, or ideas about productive solutions. Children can address these purposes effectively as they learn to retrieve information with facility.

There is one further word of cautior in considering information-acquisition skills. This relates to the idea that when healthy children acquire information they are likely to summon intellectual processes that go beyond merely extracting information that is, in fact, shown or stated. A child who observes (information acquisition) that leaves are turning brown may also process the information and infer that summer is coming to an end; study of population figures over some historical period may evoke reflective thought about why changes occur; responses to questions about a given government policy can be processed by classifying and/or using the data to make inferences, suggest tentative relationships, and perhaps make predictions. Therefore, while the discussion that follows centers predominantly on extracting information, attention to processing information is also included.

Using Direct Observation

Before children are able to use other means to acquire information, they learn about their environments by seeing, hearing, touching, smelling, and tasting. These behaviors are the means by which human beings can acquire information about their world directly, as opposed to information provided by others through answers to questions or prepared sources.

One way in which children's ability to use direct observation is evidenced is by a growing capacity to use all of their senses. In this society, and at this time in history, the eyes and ears are emphasized far more than other receptors. Because information-gathering possibilities are limited by this emphasis, children may not notice the rich variety of stimuli available through other receptors. If it is agreed that educators should maximize children's opportunities to gather information about the world around them, it follows that such opportunities can be expanded by providing experiences that build a capacity to use all the senses.

Children can observe their environment and discuss what they see, hear, smell, and feel. A group of students can explore an environment

while blindfolded, and later compare their experiences with a group of children who have observed the same environment with cotton in their ears or gloves on their hands.

A "sense walk" can provide a good lesson in observing. In this exercise, children are instructed to gather information using only one receptor at a time. Later, they are given the opportunity to reflect on their experiences and discuss them with others. Places to take children for "sense walks" might include the school gym, both during a class and when one is not in session; the lunchroom and kitchen while meals are being prepared; an open setting, such as a forest preserve, during different seasons; a business district early in the morning and at midday.

A second way in which children's capacity to use direct observation is evidenced is by their growing capacity to make good and rational decisions about which senses to trust on given occasions. This implies the need for learning experiences in which children consciously, through their own receptors and teacher-structured questions, evaluate the strengths and limitations of each of their senses.

Suppose children view a mound of salt alongside a mound of sugar. What could they learn about the two substances from their eyes, noses, and ears--by touching, smelling, and tasting? Suppose children go outdoors on a cold, clear, windy day. Which sense organs or sensory impressions would help them to know that the sun was shining? (Eyes; sense of warmth on the skin.) Which sense(s) would tell them if it was a windy day? (They could see tree branches swaying, hear the rustle of wind, feel air moving.) After repeated experiences in using all their sense receptors and evaluating the effectiveness of each, students will be able to identify settings or situations in which their ears are especially helpful, occasions when their noses supply important information, and so on.

The following objectives are related to children's increasing capacity to use direct observation:

1. Children will demonstrate a growing capacity to use all their senses.

    a. Groups of children whose eyes and ears have been covered will gather information about their classroom by touching

surfaces and detecting smells in the room. These students will then compare information with groups of children who have acquired information about the classroom by looking and listening.

b. After a series of four walks through the community, children will be able to list several items they saw (walk 1), heard (walk 2), smelled (walk 3), and experienced by touch (walk 4).

c. After a series of multisensory experiences in various parts of the community, children should be able to lay out a series of "sense walk" routes, with accompanying written guides for multisensory experiences, to be used by community groups.

2. Children will demonstrate a growing capacity to make rational decisions about which sense(s) to trust on given occasions.

a. Children will identify the sense(s) they would use to answer the following questions: Is the bath water cold? Is that substance salt or sugar? Is the soup too salty? Is the soup too hot? What is cooking on the stove? Is the radio on? Is the ball yellow?

b. After observing a body of water (lake, pond, puddle), children will be able to answer the following questions: Which sense would you use to find out if the water was cold or warm? Clean or polluted? Still or moving? Salty or fresh?

c. After making and noting several observations about outdoor conditions in summer, fall, winter, and spring, children will describe the things they see, hear, smell, taste, and feel during each season.

Using Questions

Young children who can string words together and all adults use questions as a basic way to gather information. The information sought through questions and the ways in which questions are posed may vary in style or complexity, and in these ways questioning behaviors may differ.

But beyond these differences are striking similarities between straightforward and simple questions (What time is it? What's your name? Where do you live?), detailed interview schedules, and lengthy and complex questionnaires. In each case the questioner must establish a purpose, phrase a question or questions to address the purpose, and select the person(s) from whom an answer will be valuable. The fundamental utility of questions as a way to acquire information is well established. A good skills program will help children to become increasingly efficient at gathering information in this manner.

One way in which children evidence increasing ability to use questions is by their growing capacity to frame productive questions. We all have faced the frustration of trying to figure out what someone is trying to ask us. It is probable that we also face situations in which figuring out how to ask an intelligent question is a considerable challenge. To minimize such frustrations, children should have numerous experiences in which they identify a purpose (What do I want to know?) and then frame and evaluate a variety of questions. Early exercises can offer children opportunities to select the best question from several that the teacher supplies. On each of these occasions, students should discuss reasons for their choices. Through such strategies, they can arrive at criteria for effective questions. (Is the question clearly stated? Will the question elicit a response that supplies the information I seek? Is the question free of my biases, or does it "give away" the answer I want to hear?)

Children also can formulate their own questions, tailored to a purpose, and try these out. Trying out a question, evaluating consequent responses, and then reframing the question to improve effectiveness are valuable activities. A failure followed by a new and better question that elicits a productive response will be more effective than another person's evaluation: "That's not a good question."

As children polish their question-using skills, they can conduct interviews in order to gather pertinent information. These should be planned and role-played prior to the actual interview so that questions meet all the criteria that the children have identified and so that interviews which cannot be conveniently repeated will supply the information students seek.

Practice for older children in framing productive questions can take place through the construction of survey instruments designed to acquire facts or opinions relevant to a unit of study. Questions for survey instruments should be planned and evaluated by the students and then tried out for effectiveness, using a small group of respondents who are willing to test the questions.

A second way in which children evidence increasing ability to use questions is by their growing capacity to decide who is the best person to answer a given question. Suppose a student has questions about how to interpret a table presenting census data. Perhaps the child's social studies teacher would be a suitable person to answer these questions. Answers to other questions, however (Why does my head hurt? How do you build a solar energy collector?), might better be supplied by other individuals.

Children need frequent opportunities to identify their purposes in terms of information sought and then to select people who can best address these purposes. As in the case of practice related to framing productive questions, early experiences should supply teacher-prepared choices of people to answer a given question. (Who is the best person to ask how to keep my home safe from fires? A nurse? A doctor? A firefighter? A mail carrier?) Later experiences can require that children pull from their own background suggestions for addressing the question "Whom should I ask?"

A third way in which children's ability to use questions is evidenced is by a growing capacity to select an effective method of communicating a question. When information is relatively simple and can be obtained from one individual or a small group, the answer to "How should I communicate the question?" is, obviously, "Ask it." The issue becomes more complex when a respondent faces a very complicated question or set of questions, or the probability that respondents will need to research answers or require extended time periods to respond. On one of these occasions, a question communicated in writing probably is more useful. Additionally, the researcher who needs answers to several questions of a particular nature faces the choice of whether he or she should use interviews or written surveys to gather information. Thus, answers to the

question "How should I ask?" vary according to the nature, complexity, and number of the questions to be asked and answered.

Children can be introduced to the problem of selecting the best way to communicate a given question through tasks tailored to their interests and experiences. (What is the best way to ask 20 teachers in the school if they will come to a class party? Ask each teacher personally? Make an invitation for each teacher? Call each teacher on the telephone?) Children should discuss the advantages and disadvantages of each method and select the best, stating reasons for their choice(s). Later experiences should require the students to select appropriate subjects for interviews and for distributions of surveys designed to accomplish a given purpose.

A fourth way in which children's ability to use questions is demonstrated is by their growing capacity to decide on the quantity of responses sufficient to answer a given question. (What number within a total population should I ask in order to draw a supported conclusion?) This is intended as an introduction to sampling. Children's experiences with this academic problem can help them (a) recognize that there are times when no conclusion is warranted and (b) resist the tendency to generalize results from a small or one-sided sample. It is expected that there will be limited opportunities to practice this skill in early grades through structured learning experiences. There may be times, however, when children will generalize without supporting evidence. (All the kids like kickball better than other games. We all like chocolate milk better than white milk.) On such an occasion, children can be asked to check out their generalizations. (Ask the class how many like to play kickball better than other recess games. Ask the children how many prefer white milk and how many prefer chocolate milk.) Older children who have had previous experience in using questions and responses in this manner can identify types of information they might gather by sampling an accessible population.

The following objectives demonstrate ways in which children can be taught to use questions to acquire information:

1. Children will demonstrate a growing capacity to frame productive questions.

a. In preparation for an interview with a police officer, children will decide which of the following questions would best help them to find out about the officer's career: What is your favorite color? How old are you? Do you always wear your uniform? How did you learn to be a police officer? Do you like being a police officer? Do you have children? Do you help children in your job?

b. In preparation for interviews to discover whether classmates prefer social studies, reading, math, or science, children will decide which of the following questions would be best and state reasons for their choices: Do you like pizza? Do you always do your social studies homework after school? Which subject do you like best--social studies, reading, math, or science? What is your favorite subject?

c. As part of a community-based study to evaluate whether users are satisfied with the quality and number of local recreation areas, students will propose and evaluate survey questions to achieve their purpose.

2. Children will demonstrate a growing capacity to identify the best person(s) to answer a given question.

a. After a lesson in which the teacher reads a story about communications between an astronaut on the moon and a ground control operator, children will be able to select the person who can best answer each of the following questions: What color are the moon rocks? Was it comfortable in the space capsule? Did the food taste good? Where people in Houston happy when the spacecraft landed? Were TV pictures of the landing seen on Earth? Was it fun to walk in space? Do astronauts like to watch TV in their spare time?

b. After studying about services provided by community workers, children will identify the persons they would seek to find answers to the following questions: Where is the school located? How many fire alarms are turned in each day? Can my alley be cleaned up by the garbage crew? How often should I have a medical checkup? How many factories in our community add dirt to the air from their chimneys?

c. During a study of community problems, students will select the appropriate target population to respond to a survey about satisfaction with neighborhood health services.

3. Children will demonstrate a growing capacity to select effective methods of communicating questions.

a. During a planning session for an end-of-the-year party, children will decide whether it would be best to invite several upper-grade children by asking each child to come to the party, sending invitations, posting an invitation on the school bulletin board, or telephoning invited students.

b. Children will match a list of information-gathering tasks with appropriate methods to accomplish those tasks, giving reasons for their decisions.

Tasks	Methods
If you want to find out:	The best way is to:
What you can do to help stop pollution	Write a letter
Students' preferences for school colors	Use the telephone
What life in the community was like 50 years ago	Arrange for a personal interview
The costs and rules for licensing bicycles	Conduct a survey
What health services exist in the community	
How to report a crime, a fire, or an accident	

c. While studying farming practices of corn growers in Iowa, coffee growers in Colombia, tea growers in India, and mushroom growers in Taiwan, children will generate ideas on how to find out about planting and harvesting practices, pest control, and technology used by each group of farmers.

4. Children will demonstrate a growing capacity to decide whether a given quantity of responses is sufficient to answer a given question.

a. After members of the class select their favorite activities from a pictured set of four (playing outside with friends, reading a storybook, playing with a pet, watching

TV) and analyze the results (most of the students prefer playing outdoors with friends), children will use this information to answer the following questions: Does this information tell us that all first graders like playing outside more than other activities? Does it tell us that sixth graders' favorite activity is playing outside? Does it tell us that parents' favorite activity is playing outside?

b. During a discussion about opinions on the design of a school flag, students will identify the number of opinions needed from each grade level in the school in order to reach a fair decision.

c. After a series of lessons focused on estimates that are necessarily based on samples, children will identify the estimates they could make by sampling the accessible population (e.g., the average height and weight of fifth graders in the United States, the number of times each year that children have medical checkups, children's favorite games at recess, the number of hours children spend in school each day in the United States).

Using Prepared Sources

The social studies curriculum traditionally has given major emphasis to skills involving the use of prepared sources. Such emphasis may be more important now than ever before. Information communicated via prepared sources is becoming more prevalent in our society. We increasingly use the media, rather than face-to-face conversations, to gather information, follow instructions, or be entertained.

The use of maps, models, pictures, diagrams, and graphs has become important in our everyday lives. We hardly look at a newspaper, watch a TV news program, or read a consumer magazine that does not incorporate such graphic media. Graphic representations are efficient means of communicating information that would take far more space and be less useful if it were communicated in expository paragraphs. An ability to extract information from these "languages" is fast becoming as important as the ability to use the written word.

Time spent in social studies serves to reinforce and extend skills developed in other areas of the curriculum. Use of graphs and tables in appropriate social studies lessons allows children to reinforce and make use of their math-related skills in new contexts. These media communicate information about matters of quantity (How much? How many? What percentage?) and thus help children practice computation skills. In addition to gaining added practice in math-related skills development, children are benefited by making social studies part of a larger instructional effort, in which knowledge in one subject area complements and reinforces learning in another.

What has been said of math-related skills can also be said about reading skills. Under any circumstances, a social studies program in elementary school should serve to further and reinforce children's reading skills. Today that *should* has transformed into a *must*. If schools are to correct the reading problems affecting many children today, teachers must accept the responsibility of providing opportunities for reading skills development in all areas of the curriculum.

Opportunities to reinforce reading skills in the context of social studies instruction are abundant. Students are exposed through text materials to a variety of literary forms, such as poetry and case studies, in addition to narrative passages. Tables and graphs reinforce reading skills as children use them to acquire factual information. Each time children choose appropriate references (reference books, telephone directories, maps, statistical data) for given tasks and use these with understanding, they are helping to reinforce decoding skills introduced and developed in their reading classes. Text passages and case studies can be used to reinforce literal comprehension by asking children to identify the words or sentences that supply selected information. Reinforcement of interpretive comprehension can be achieved by asking children to draw conclusions, identify cause-and-effect relationships, and predict outcomes. Evaluative comprehension can be reinforced by asking children to identify statements of opinion and to distinguish these from statements of fact. The last-mentioned process is among several that help children develop what are commonly called "critical reading skills" (critical thinking about what is read). Other critical reading skills include

distinguishing reality from fantasy, identifying sweeping statements, and noting inaccuracies or incongruities.

The primary responsibility for developing oral and written communication skills is usually relegated to the language-arts teacher. It is common practice, however, for social studies teachers to actively reinforce these skills. After acquiring information, children can be instructed to encode data or report the information in some appropriate manner. Often information will be reported by having students write an essay, a case study, or some other kind of paper. Conscious attention to writing skills development can and should occur while children achieve social studies content objectives (Beyer 1977, Roselle 1977). The same can be said for oral communication skills, for there are numerous opportunities for children to tell about information they have gathered while developing their information-acquisition skills.

Though there is wide agreement among educators that reading, language-arts, and math skills must be developed for productive transfer to adult life, it can be argued that it is counterproductive to attempt to accomplish this by devoting more time to reading, language arts, and math at the expense of the content subjects (science and social studies). Such practices allow only narrow application of skills, when opportunities are needed to apply skills across a broad range of contexts. Moreover, the repetitive nature of many basic-skills activities may checkmate children's interests and thus work against productive transfer. Finally, it is simply unnecessary to confine the development of reading and other basic skills to their traditional classes when such rich opportunities for paying attention to the same skills are available elsewhere.

Growth in the ability to use prepared sources results, in part, from children's normal development. As children grow older, they are naturally better able to handle more-complex media and practice more-complex tasks involving those media. Such development is abetted when children frequently practice using the media, in that skilled behaviors become firmly grasped and natural to apply. Three ways in which children evidence growing abilities to acquire and report information using prepared sources are described here.

First, children's growing ability to use media is evidenced by their increasing capacity to work with abstract data. A dot map or one that

displays information by means of color or hachures is more abstract than a pictorial map in which the mapped symbols look like their real counterparts. A bar graph offers a more concrete picture of data than a complicated line graph. A narrative passage that uses vocabulary beyond the child's conceptual inventory is more abstract than one that treats items found in the same child's observable environment.

Sometimes abstractions are defined as such because they characterize information that depicts ideas (love, nationalism, revolution) rather than objects (tables, streets, houses). Sometimes entities are regarded as abstractions because their attributes are difficult to define (e.g., the concept of *neighborhood* may be defined differently depending on one's age and mobility and the location of one's friends, activities, or interests within a geographic area).

Sometimes entities are regarded as abstractions because details, though available, are difficult to observe in reality. For example, maps that show the uses of rooms in a school are more concrete than community maps that show land use in the neighborhood; a land-use map for a local area is more concrete than a generalized land-use map for the entire continent. Finally, sometimes an entity is regarded as an abstraction simply because it is unfamiliar to the perceiver. For example, children who were raised on a farm would find an agricultural land-use map more concrete than children who were raised in an urban area. Conversely, city children might find an urban land-use map, showing industrial, commercial, and residential uses, more concrete than an agricultural land-use map.

All of these considerations draw upon Piaget in suggesting that children's early experiences should focus on symbols (words, maps, graphs, and drawings) that stand for realities of a concrete nature which are readily observable and drawn from children's familiar environment. As students' experiences mount, as their conceptual inventory expands, and as they are better able to process less-concrete data, they can make better use of media that communicate abstractions.

A second way in which children's ability to use media is evidenced is by their growing capacity to work with a larger number of variables. A table that shows information about a hundred countries is more complex

than one that shows information about ten countries. A map that shows houses on a child's street is less complex than a map that shows the same street but adds information about the sewer system, telephone lines, and electrical wires. A picture that shows one human being is less complex than one that contains several people involved in a variety of activities. It is obvious that young children's experiences should focus on simple data in which the number of variables is limited.

A third way in which children's growing ability to use media is evidenced is by their increasing capacity to perform more-complex tasks involving the media. Imagine a map showing elevations and average July temperatures in the state of California. Requiring a child to use this map to find the average July temperature in Los Angeles presents a less-complex task than asking the child to use the mapped data to test the hypothesis that average temperatures decrease as elevations increase. Accordingly, suppose children were asked to read three case studies in which families communicated their reasons for moving. To report the reasons why family X moved is less complex than reporting how the three families' reasons to move were both alike and different. In the latter examples, there are more things to do and the tasks require more-complicated intellectual processes.

It is obvious that young children's experiences should focus on simple data in which the numbers of variables are limited and the tasks are simple. With frequent practice and maturity, children can handle increasing numbers of variables and increasingly complex tasks.

The learning objectives that follow are concerned with children's ability to use prepared sources. (The examples focus only on the use of maps, since space in this paper is insufficient to provide suggestions for the several prepared sources that children use in social studies.)

1. <u>Children will demonstrate a growing capacity to use media that are increasingly abstract</u>.

    a. Children will use floor blocks to make simple and concrete models of objects in the classroom and describe the location of these, using such terms as *near, far, beside, next to,* and *to the left of*.

b. After making a survey of classmates' home addresses, children will invent symbols, plot the locations of homes on the map, and enter the symbols onto a legend.

c. As a part of a study of urban areas, children will delineate on a land-use map the location and size of areas used for factories, residences, stores, and parks.

2. Children will demonstrate a growing capacity to use media that contain an increasingly larger number of variables.

a. Children will use a bird's-eye view and pictorial symbols to draw a map showing the location of four items on a table (a crayon, a pencil, an eraser, a piece of paper).

b. Using a simple map of the community, children will describe the locations of selected residences, stores, and streets, and be able to use cardinal directions to route classmates from one place to another on the map.

c. Given a world map showing desert areas and a world map showing countries, children will identify the countries in which the world's major deserts are located.

3. Children will demonstrate a growing capacity to use media to perform increasingly complex tasks.

a. Children will use a globe to point out land and water areas.

b. Children will use a globe to list the seven continents and discuss their locations relative to one another.

c. Children will use a globe to plot a Great Circle route between two cities, use the scale to calculate air distance between the two cities, and list other major cities along the route.

Information-Processing Skills

The commentary in the preceding section was focused primarily on skills children need simply to *extract* information from the wide variety of stimuli available to them. There is little disagreement about the importance of these skills among social studies educators. To attend to such skills development enriches children's opportunities to gather data from a wide variety of sources and use them efficiently. Additionally, the development of information-acquisition skills complements the development of skills in reading, language arts, and math.

It would be an error, however, to confine a discussion of social studies skills development to information-acquisition skills. In addition to possessing the latter, children must be able to process information effectively (or think about data) in order to serve some productive end. It is thinking that allows children (and adults) to move toward purposive understanding and to direct their activities toward conscious objectives. Thinking enriches things with meanings; encourages speculation, invention, and prediction; and helps in solving problems. The ability to process information or think productively allows individuals to transform a situation marked by confusion, doubt, and conflict into one that is coherent, enlightened, harmonious, and rational.

There are several ways in which people verbalize about the importance of thinking. When one acts hastily or makes an error of some type, he or she is likely to say, "I didn't think" or (meaning the same) "I didn't use my head." We try to "think things out" in an attempt to solve a problem. We hope that our older children will "think about" the consequences of their actions as they face choices about continuing in school, using drugs, behaving harmoniously with others, or carrying out obligations to family members or employers. We know that adults have to think in order to practice the effective citizenship on which a free society depends.

It is our position that, among other educational aims, schools should emphasize the development of thinking in children. We do not mean that schools should abandon their attention to the rudiments of reading, language arts, and math. Rather, we believe that educators should allow

broad applications of these skills in many contexts, and that they should use experiences in reading, language arts, and math whenever possible to stimulate thinking. Nor do we mean that schools should abandon attention to knowledge acquisition; for, among its other values, knowledge is a necessary (but not sufficient) condition for productive thought. Blanshard (1964) demonstrates the relationship between knowledge and thinking with an anecdote about Darwin: When Darwin saw an orchid with a nectary 12 inches deep, he was stimulated to reflect on the possibility of a moth with a proboscis 12 inches long. His research supported this hypothesis. Why would the orchid stimulate reflection in Darwin's mind and not in the minds of others? True, he had biological knowledge that others might not have had, but that knowledge alone was not sufficient. Darwin also perceived an *occasion* for thinking (a problem or a need to move toward understanding), and he had the past experiences and motivation to summon productive thought processes.*

Emphasis on the development of thinking in children does not mean that schools should abandon attention to the development of information-acquisition skills, for thinking and information acquisition are interdependent. Thinking cannot occur without something to think about (information or knowledge); thus, productive thinkers are assisted by their ability to acquire information that is not stored in memory from earlier learning. Furthermore, productive information acquisition is dominated by thought. Thoughtful observers avoid irrelevant observations; they avoid fixing only on some relevant things while failing to see other things that are relevant; they avoid observations that tend to stereotype, or generalize that what is true in one instance is true in all; they avoid assuming that information which is unavailable is nonexistent.

Finally, emphasis on the development of thinking in children does not mean that educators should prescribe what to think or even how to think. It would be difficult to find agreement on substance or procedure when it comes to human thought. Rather, it is suggested that emphasis on the development of thinking should expose children to a variety of environmental stimuli and that it should consciously provide occasions to think--

*Roselle, in *A Parent's Guide to the Social Studies* (1974), provides a useful discussion about the relationship of knowledge or facts to the process of thinking.

to practice operations associated with thinking and thus to develop and refine the transferable tools needed to meet life's problems.*

A great deal has been written in an attempt to understand the nature and development of children's thinking. Social studies literature is replete with typologies for and ideas about thinking-skills development. The typology and suggestions here are based on three interrelated ideas.

First, along with Dewey (1933), Raths (1967), Fraenkel et al. (1969), and others, we assume that the ability to think is present among healthy children of all ages. Even young children select objects or activities in order to achieve ends. These operations demand purposive judgments integral to human thought. Thus children come to school with the intellectual equipment they need in order to think productively.

Second, in order to provide learning experiences that develop thinking among children, it is useful to break out specific processes utilized by the thinker. In this connection, we have identified a partial list of processes that seem to characterize thought in individuals of varying ages. We have labeled these as follows: comparing, classifying, conceptualizing, inferring, hypothesizing, imagining, and evaluating. Their precise labels aren't important, for there may be more-appropriate ways to categorize these processes (and those subsumed by each). However, they seem to summarize basic intellectual behaviors that together allow individuals the capacity to think.

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*The importance of a variety of environmental stimuli to children's cognitive development is discussed by Ausubel (1968, p. 46). He states that "whatever the individual's genetic potentialities are, cognitive development occurs largely in response to a variable range of stimulation. The more variable the environment to which individuals are exposed, the higher is the resulting level of effective stimulation." The position is reinforced by Taba (1967, pp. 30-31), who has drawn on Bruner (1964): ". . . these [thinking] abilities do not simply mature. Their development is a function of the type of environmental stimulation available as well as of inherent potential. While this stimulation is in part shaped by the nature and variety in environment itself, it is also influenced by the quality of mediators. The environment of the so-called retarded and culturally deprived children not only is less variegated in certain respects important to school learning, but also tends to lack adult help in transforming the aggregate of stimuli into orderly conceptualizations. Training could be seen as conscious systematic mediation which puts certain facilities at the child's disposal."

Finally, our assumption is that an effective school program, especially an effective social studies program, should attempt to refine and develop these basic intellectual processes by allowing children to use them frequently, in a range of contexts, with careful monitoring, and in increasingly complex applications.

In the following pages, each of the thinking skills is treated separately. In reality, however, thought processes are interdependent; they cannot be separated. When individuals classify complex information, they may make inferences and draw comparisons in order to categorize the data. In using any of the processes, individuals may summon one or all other intellectual operations.

The decision to treat each of the thinking skills separately serves several purposes. Separate treatment of each skill allows us to (a) specify related processes, (b) discuss the utility of each of the processes, and (c) provide instructional examples that will assist teachers in developing children's capacity to use the processes. Additionally, if teachers aim at helping their students use all processes productively, they must design a program in which each of the processes is practiced and refined and none is overlooked.

Comparing

Human thought is inherently comparative; thus the ability to make comparisons is, justifiably, one of the most widely emphasized thinking skills in elementary school. There are several points that can be noted about this skill. One is that a social studies program should involve students in making two kinds of comparisons. The first can be called a *cross-sectional* comparison. This is a comparison of the attributes, qualities, or properties of two or more *different entities* (e.g., two children, an American family and a Vietnamese family). The second can be called a *longitudinal* comparison. This is a comparison of the *same entity at different points in time* (an individual in infancy, childhood, and old age; early humans and modern humans; U.S. technology in the nineteenth century and in the twentieth century; an individual's mood when fatigued and when rested).

Both a kindergarten pupil and an older child can make comparisons. In what sense can we say that a sixth grader is the more skillful in comparing, other than that he or she can compare more-complex or more-abstract entities? Developing students' comparison-making skills entails developing their ability to make progressively more "conceptually complex" comparisons.

The term *conceptual complexity* is used to refer to two increasing capacities among children. First, children who evidence growing ability to make comparisons will demonstrate an increasing capacity to perceive two or more objects of comparison as being both alike and different. (For example, the French Revolution is like all other revolutions in some respects; like some, but not all, other revolutions in other respects; and in still other respects a unique historical experience. Or, Nigerian society shares certain characteristics with some but not all other human societies in addition to possessing some attributes which are uniquely Nigerian.)

In early experiences designed to develop this capacity, children should focus on familiar and observable objects or situations in order to make comparisons of similarities and differences. With practice and maturity, children will continue to look for ways in which more-abstract and more-complex objects, events, and situations are *both* alike and different.

A second way in which children evidence an increasing capacity to make comparisons is by their growing awareness of the influence of sampling on relative perceptions of differences and similarities. For instance, a teacher in a fourth-grade classroom might tend to see more differences than similarities between two fourth-grade students. However, if the sample were expanded to include all elementary-school children, the teacher's perception might be reversed. Similarly, a sample of workers in the modern world which included only the United States and the Soviet Union might lead observers to emphasize the differences between the two workers. Were the sample expanded to include Chad, Burma, Haiti, and India, an observer might conclude that workers in the industrialized United States and those in the USSR are alike in many respects when compared to workers in less-industrialized nations of the world.

Learning experiences designed to enhance awareness of the influence of sampling on perception should proceed in the following manner: First, children should list similarities and differences between two objects; then a third object should be introduced (and sometimes a fourth and more). A simple example will be helpful: Imagine a picture showing that Fran has a small girl's red bicycle with training wheels and JoAnn has a large girl's blue bike with no training wheels. Students can describe ways in which the two bikes are alike (both have two large wheels, handlebars, pedals, etc.); then students can describe differences between the two bikes (size, color, one has training wheels). Now imagine a second picture showing Fran and JoAnn and their bikes which also includes Mark and his small boy's blue bike with training wheels. Students are asked (a) how Mark's bike is more like Fran's (size and training wheels), (b) how it is more like JoAnn's (color), and (c) how Mark's bike is unique.

Young children should work with familiar and observable examples. These might be classmates' physical appearances, favorite activities, things children do well and not so well. Older children who have matured and benefited from previous experiences with tasks of this type will be prepared to focus on larger and more-abstract entities (historical conflicts, ideologies, environmental problems, urban spatial patterns, moral dilemmas, and so on). In all cases, comparisons designed to show the influence of sampling on one's relative perceptions should begin with a comparison of two entities and then expand the sample to consider similarities and differences among a larger number.

The learning objectives described in this section are related to the development of children's ability to make comparisons. Reflected in these objectives is the goal of helping children understand (a) that two or more objects of comparison can be alike and different at the same time and (b) that methods of sampling can influence their relative perceptions.

1. Children will show an increasing ability to make cross-sectional comparisons.

    a. After several lessons during which children view pictures of other children (cross-societal examples) and identify physical likenesses and differences among the pictured children, they will be able to compare themselves, in terms of likenesses and differences, to a new set of pictures.

b. In a lesson in which a teacher reads stories about the beliefs of other societies, children will select some of the beliefs of people in one society and write essays comparing these beliefs with their own beliefs.

c. After examining diaries of families who emigrated in the 1800s, children will write essays comparing likenesses and differences between two or more groups' reasons for emigration.

2. Children will demonstrate an increasing ability to make longitudinal comparisons.

a. Children will use pictures of themselves as infants and toddlers, along with a mirror, to explain the ways in which their appearance over time has changed and ways in which they still look the same.

b. Using pictures of schoolrooms in the United States during the early 1900s, children will list all the ways in which their own schoolroom is similar to and different from the pictured examples.

c. Given several photos showing a section of an urban area over a 50-year time span, children will be able to identify statements that apply to all the photos (likenesses over time) and those that apply only to individual photos (differences over time).

Classifying

A skill related to making comparisons is *classifying*. This is the act of sorting things into groups according to a consistent set of criteria.

Like comparing, the process of classifying is a fundamental element in human thought. Adults mentally classify foods into those that are fattening and those that are nonfattening; items into those to pack in a suitcase and those to leave at home; playing cards into hearts, diamonds, clubs, and spades (and those into numerical order); solutions to problems into those that are reasonable and those that are unreasonable. Children also classify--toys into favorites and nonfavorites; days into good, fair, and bad for swimming; classes into interesting, OK, and boring.

A social studies program should involve children in two kinds of classifying activities. The first calls for children to select a group of items from a larger number and to label the group. Then, based on different criteria, children are asked to regroup and relabel the same items. Consider an example of classifying in which children use wooden blocks of different sizes, shapes, and colors. First they are asked to identify a group of blocks that could go together. Red blocks are selected and labeled as such. The grouping by color and labeling of sets continues until the child has a red pile of blocks in assorted shapes and sizes, a yellow pile in assorted shapes and sizes, and a blue pile assorted similarly. Then the child is asked to find a new way that the blocks could be sorted. The result may then be blocks labeled small, middle-sized, and large. Finally, the same blocks may be sorted by shapes and the various groups labeled triangles, rectangles, circles, and squares.

A second type of classifying experience that children should have involves ranking items or arranging them along a continuum according to some criterion. An arrangement of events by date, as in a time line, is one example. Other examples are classmates by height, from shortest to tallest; countries in South America by size of population; and countries in Africa by the dates when they were freed from colonial rule.

Children who evidence growing ability to classify are able to increase the number of subsets into which they can group a given population of things. Needless to say, any population can be classified into several different groupings or subsets. Take the simple case of categorizing a population of students in a classroom. They could be classified by sex, age, color of skin, color of eyes or hair, height, weight, ethnic origin, social class, favorite subject--the possibilities are endless. A child who can categorize a population into five groups has more highly developed classifying skills than one who can group a population into only two subsets.

Another way in which growing ability to classify is evidenced is the increasing number of subsets a child can use to classify things along a single dimension. For example, a child who can rank continents by geographical size along a continuum from largest to smallest has better-developed classifying skills than one who groups them into two categories, big and small.

A third way in which growing ability to classify is evidenced is the increasing capacity to systematically sort things into multiple and overlapping groups. For example, a child who can categorize a population of things into a fourfold classification (e.g., girls with long hair, girls with short hair, boys with long hair, and boys with short hair) has a better-developed skill than a child who can group boys and girls and long-haired people and short-haired people but cannot combine the two groupings.

The learning objectives that follow reflect ways in which children can be helped to develop an increasing ability to classify. The strategies suggested here are designed to facilitate growth in the abilities to identify subsets into which items can be grouped and to sort items into multiple and overlapping groups.

1. Children will evidence a growing capacity to group, label, regroup, and relabel items.

   a. Given large and small red triangles and large and small white triangles, children will group the triangles according to red and white, large and small, large red and large white, and small red and small white.

   b. Using several objects which serve as examples of tools familiar to students, they will sort and classify the tools into multiple groups.

   c. Given several objects which the children have gathered to make a time capsule, they will sort and label groups until they agree on the classifications which will be most informative to a future observer.

2. Children will demonstrate a growing capacity to arrange items along a continuum.

   a. From a set of five pictures, each of which has progressively more information, children will rank the pictures from the one which gives the least information to the one which gives the most.

   b. Given five site diagrams, children will rank each site from the most desirable to the least desirable for building a playground (or factory, school, house, etc). The class will then evaluate these opinions.

c. Using a list of several dated (but not chronologically ordered) historical events (inventions, wars, etc.), children will generate categories for the data and arrange each category from earliest event to latest event.

Conceptualizing

Making comparisons and classifying things are two critical ingredients of a third intellectual skill, one which many educators consider to be the single most important cognitive skill that schooling can foster in children--the ability to think conceptually.

This skill encompasses two types of intellectual behavior that often flow from one another and are clearly interdependent. The first, commonly called *analyzing*, is the ability to identify the attributes of a concept by mentally breaking it down and identifying examples of the concept. Suppose children are studying the concept of a *human group*. They hear or read that human groups can be defined as two or more people who communicate or have shared interests. Using this definition, children are able to identify (by using photos or role playing) examples and nonexamples of groups.

The second type of conceptualizing behavior is called *synthesizing*. To pursue the example of human groups, a synthesizing experience would proceed as follows: Children would be presented with pictures (or role-played situations) in which (a) two children are playing ball, (b) five teachers are working on a project over a table, (c) two children are passing each other walking in opposite directions on a sidewalk, and (d) one adult is playing a game of solitaire. The children would be told that pictures 1 and 2 showed human groups, while pictures 3 and 4 did not show human groups. The children would then be asked to use the examples as a basis for stating in their own words what they think a human group might be.

In the first example, the children took apart (analyzed) the concept in order to identify instances and noninstances; in the second example, the children used pictured instances and noninstances of human groups and analyzed the attributes of each in order to put things together (synthesize) and arrive at a meaning for the concept of a human group.

There are two ways that children evidence an increasing capacity to think conceptually. The first way is by building up the number and richness of concepts they understand and can use comfortably. Particular types of learning experiences are useful to this end. Children need frequent opportunities to make detailed observations, discuss relevant characteristics of phenomena that they encounter, and tie these to other concepts. Again, early experiences should focus on relatively simple and concrete examples that are familiar to children and can be directly observed. Very simple concrete examples could be provided by concepts that subsume objects which can be touched, smelled, tasted, heard, or seen by children. The concept of *roundness*, for example, is relatively simple; it can be developed by having children observe and discuss the relevant characteristics of oranges, tennis balls, basketballs, and globes. The concept *pets* can be developed by using a variety of animals from the classroom, children's homes, or elsewhere so that relevant characteristics of pets (animals that people care for and often love) are clearly developed. The concept *furniture* can be developed by having children observe and discuss the relevant characteristics of examples from schoolrooms, homes, stores, offices, and theaters.

As children mature they will be able to handle more-complex concepts that may not be palpable and which contain larger numbers of complicated subsets. The concept *furniture*, for example, is relatively simple; the concept *group* is more complex; the concept *revolution* is even more complex. Furniture can be seen, touched, smelled, and examined directly by children. Groups are not palpable, although their attributes can be observed by children and membership in them is part of a child's everyday experience. Revolutions are beyond children's familiar observable environments; additionally, they are characterized by complex relevant attributes and include multiple subconcepts that incorporate a range of their own relevant attributes.

A second way children evidence a growing capacity to think conceptually is demonstrated by their ability to increase the number of subcategories into which a given concept can be broken down. For example, the child who equates animals with living things must come to understand that the former is just one subclass of the latter. Guided experiences

to reach such understanding should begin by asking children to identify the relevant characteristics of the larger, more-inclusive concept. For example, relevant attributes of living things include the needs for food, water, and air and the abilities to grow, move, respond to stimuli, replace or repair parts, and reproduce. The next step in the process calls for children to analyze several phenomena to see if they meet the criteria attributed to living things. Ideally, these phenomena should include both examples of the concepts (plants, people, and other animals) and nonexamples (rivers, desks, trucks).

The following objectives reflect ways in which children can be helped to develop skills related to thinking conceptually:

1. Children will evidence a growing capacity to break down larger, more-inclusive concepts into subconcepts (analysis).

   a. After learning the meaning of the concept *rules*, children will be able to describe rules that people follow in their homes, at school, in movies, etc.

   b. After the teacher reads a story about the use of varied resources, children will be able to name more resources than they could before hearing the story.

   c. After receiving a series of lessons on settlements and being given a simple map of a large hypothetical area, children will identify and name more types of settlements than they were able to name before the lessons (e.g., large cities, small towns, villages, suburbs, satellite cities).

2. Children will demonstrate an increasing ability to combine objects or experiences into larger, more-inclusive concepts (synthesis).

   a. After viewing several pictures showing examples and non-examples of cooperation, children will be able to state a definition of *cooperation* in their own words.

   b. Given a variety of stories (cross-societal and longitudinal) about people using different tools, children will select the statement which best describes all the stories (people eat, people have cars, people hunt for food, people use machines, people use technology).

c. After using direct observation of, reading about, and seeing pictures of people meeting their biological and psychological needs, children will be able to state a definition for the concept *need*, using their own words.

Inferring

The ability to make inferences draws upon all of the information-processing skills treated in earlier pages. Like comparing, classifying, and conceptualizing, inferring is a basic process in human thought. Although there are distinctions between making assumptions and making inferences, and although both processes are operative in children, the differences are not really important to elementary school children and, thus, will not be made here.

The act of *making inferences* is defined as going beyond information that is, in fact, displayed and looking for ideas that are implicit. Dewey characterized inference making as the "heart of reflective thought" and stated that it is the "process of arriving at any idea of what is absent on the basis of what is at hand" (Dewey 1933, p. 95). People make inferences when they use facts to inspire new ideas, discover meanings that are expressed in obscure ways, reach conclusions, or project consequences on the basis of data at hand.

Almost any stimulus can provide the raw materials for inference making. A parent's scornful glance will evoke an inference from a toddler; laughter in a room and the sounds of conversation and tinkling glasses are cues for inferences about an activity taking place; the rising or falling curve in a graph may help us to assume that unemployment or the price of securities or the cost of living can be expected to rise or fall; a preelection poll will stimulate inferences about a candidate's chances for election; words in a poem will help us to infer the sadness or happiness communicated by the poet. The ability to make logical inferences supported by evidence clearly enriches one's thinking. The same can be said about enriching one's capabilities to identify problems and, thus, to move closer to solving those problems. We infer that a problem exists when a loved one is cool to us; we are sensitive to signals that others are tired or grouchy or bored; we make inferences

about potential health problems in ourselves or others from changes in appearance, appetite, or sense of general well-being.

Children evidence a growing capacity to use inferences as they become better able to identify and distinguish inferences from observable facts. The ability to make such distinctions has great value to citizens deluged by advertising claims, political propaganda, and news that is filtered through individuals and through mass media.

Classroom practice in distinguishing facts from inferences can be built into working on information-acquisition skills. Using direct observation, for example, children can be shown a series of statements about the observable environment. Children can classify each statement as (a) a fact or (b) an inference that is based on evidence but which may or may not be fact. In each case, children should be asked to defend their choices by citing evidence. Statements might proceed as follows: (a) There are boys and girls in the classroom (fact); (b) It is cloudy outside (fact); (c) The schoolroom contains walls, a door, lights, desks, and chairs (fact); (d) At 3 o'clock, everyone will go home (inference based on evidence--many of the children will go home, but some may go to the dentist and others to visit friends, and the teacher may stay to work or go to a meeting); (e) It will rain today (inference based on the fact that it's a cloudy day); (f) Everyone will learn something new this afternoon (inference--some children may learn something new and some may not).

Prepared sources offer abundant opportunities for children to practice identifying and distinguishing facts from inferences. As in the examples for direct observations, teachers should extract statements of fact and inference from text passages, graphs, tables, pictures, films, and case studies and ask children to classify these appropriately, citing evidence for their classifications.

The examples in the preceding two paragraphs call for teachers to construct statements that children classify as facts or inferences. Another way in which children evidence an increasing capacity to use the inference-making process involves using data to formulate and state their own inferences and support these with evidence. Answers to questions, responses to surveys, and interviewees' responses can be used in this connection. Children who acquire information in this manner should be

asked to report the facts in their findings and to use the data to make logical and supported inferences. For example, a sixth grader who practices using data to make inferences might say: "Based on my sample of sixth graders, most children in that grade prefer social studies to other subjects. This inference is supported by the fact that 72 percent of the 35 sixth graders I interviewed selected social studies as their favorite."

Prepared sources can also be used extensively to develop children's ability to make logical inferences. Virtually all prepared sources provide rich opportunities for children to practice making inferences. Children can draw conclusions from a narrative text passage to infer answers to questions about who, what, when, where, or why, although these answers may not be stated specifically. Children can use stories to make inferences about a character's feelings or mood. Reading books and newspapers can help children make inferences about causes and/or outcomes related to historical events or contemporary situations.

On all occasions that provide such practice, children should be asked to state evidence to support the inferences they draw. This practice will discourage (though not always prevent) children from "jumping" at inferences that are unwarranted. Alternately, if children practice searching for evidence to support their inferences, they learn at the same time to live with a state of doubt and thus foster an important emotional skill--tolerance of ambiguity!

The learning objectives that follow postulate ways in which children will develop inference-making skills:

1. Children will evidence a growing capacity to identify both facts and inferences and to distinguish facts from inferences that are based on facts.

    a. Using pictures of families in different settings (camping, shopping, at an airport, eating a meal), children will be able to state facts about the pictured families and make guesses based on what is, in fact, shown.

    b. After listening to a classmate's report on an interview with the school principal, children will identify facts presented in the report and inferences that the interviewer reported based on facts.

c. Using a graph showing U.S. farm production, 1850-1970, that shows the number (average) of persons each farmer produced food for, children will identify facts and inferences based on the data.

2. Children will evidence a growing capacity to generate logical inferences and identify evidence on which inferences are based.

a. Using a picture that shows subjects engaging in an activity and expressing emotions, children will make inferences about what is happening in the picture and how the subjects feel about what is happening, supplying evidence for inferences drawn.

b. After reading a story about a day in the life of two children, students will use the story to make inferences (based on evidence) about ways in which children in the story depend on the natural environment to meet their needs.

c. Using narrative passages and photographs, children will make inferences (based on evidence) about the need for and purpose of marketplaces in a given society.

Hypothesizing

A *hypothesis* is defined here as a disciplined generalization that asserts a testable relationship between two or more variables. The process of hypothesizing, another basic component of human thought, is at once interrelated to processes discussed earlier and unique in its own attributes. The following example will demonstrate these interrelationships:

Suppose a person returns from a working day in a grouchy state. A child or spouse observes abrupt responses to questions, unpleasant facial expressions, and tones of voice that connote grouchiness. On the basis of this evidence as well as of past learning, the grouchy individual's mood is attributed to disappointments, problems, or frustrations of the working day. These are summarized by the silent conclusion "X is grouchy because he or she had a hard day at work." Such a conclusion depends on comparison making (similarities and differences, as this behavior is compared to behavior on happier occasions), classifying (some behaviors can be categorized as happy and others as grouchy), conceptualizing (considering the relevant attributes of grouchy behavior and "good" or "bad" work

days), and, of course, inferring (arriving at a conclusion about the person's mood and its cause on the basis of evidence).

Now, suppose the statement "X is grouchy because he or she had a hard day at work" is cast as "If parents have hard days at work they are grouchy when they come home." The earlier statement refers to a specific and isolated case, while the latter generalizes about the relationship between the two variables (difficult work days cause grouchiness). It is the process of making the more-generalized latter statement that we are designating as hypothesizing.

In developing children's hypothesizing skills we confront a common problem, in that children are prone to make two types of errors in generalizing about the world or themselves. Type 1 errors stem from overgeneralizing--generating hypotheses about a whole population of things that in reality apply only to a subset of that population (e.g., Africa is covered with jungle). Type 2 errors result when children fail to generalize when a generalization would afford valid and useful insights about the nature of the world. The challenge is to develop within children a capacity to make *disciplined* generalizations that are treated not as absolute truths but rather as testable hypotheses, thus minimizing type 1 errors. Additionally, it is less threatening to generate a testable hypothesis than to make an absolute statement, on the basis of some particular evidence; thus, the risks that might tempt one to make type 2 errors are minimized. Hypotheses managed in these ways can help children develop powerful tools of thought. They are powerful because they frequently permit one to leap from a set of known facts across a chasm of ignorance to logical generalizations about solutions to problems or new directions for thinking.

In developing hypothesizing skills, there are at least two major tasks. The first calls for children to develop an increasing ability to formulate hypotheses on the basis of evidence. It may appear that such sophisticated-sounding behavior is not possible for young children, but in fact just the opposite is true. Imagine that kindergartners are asked to cut out pictures of their favorite food from among three choices (ice cream, hot dogs, and peas). The children then construct a pictograph by pasting their choices next to the appropriate examples on a bulletin

board. On the basis of the data and a careful question from the teacher (What does the graph tell us about kindergartners' favorite food?), the children have an introductory experience with hypothesis construction. They respond by making a generalization that there is a relationship between two or more things (children and favorite food), and they can use the graphed evidence as a sample on which their tentative hypothesis is based.

Prepared sources, direct observation, and responses to questions allow numerous opportunities for children of all ages to formulate hypotheses based on evidence. In all cases hypotheses should be regarded as tentative, so that a state of doubt continues until children gather enough evidence to warrant making a judgment about whether hypotheses are supported or should be revised.

This leads us to a second major task associated with building the skill of hypothesizing. Here children should evidence an increasing capacity to suggest ways that a given hypothesis might be tested. To pursue our kindergartners example, the statement "Kids like ice cream more than hot dogs or peas" is a testable hypothesis that might be formulated by young children. Children could be asked to identify ways to find out whether the statement is true or should be changed in some way. Guided by the teacher, children might elect to ask other classes in their own school or in other schools to repeat the choice-making activity. In short order, children would see the need to incorporate into the hypothesis some qualifying words (*Some* kids like ice cream) or, perhaps, revise the hypothesis completely because they discover that most children prefer hot dogs to ice cream or peas.

Obviously, opportunities for testing hypotheses arise every time children make generalizations. Examples of the undisciplined type are heard often. (Boys are messy. Girls are silly. Dogs are friendly.) An alert and resourceful teacher will treat such assertions as tentative hypotheses and ask children to identify ways of testing them to determine whether they are supported by evidence. After such tests, children should be expected to revise the statements, if necessary.

Perhaps it is evident that treating generalizations as tentative and testable hypotheses has several side benefits. As stated earlier,

such treatment discourages unsupported or unwarranted generalizations and, thus, contributes to an openmindedness that engenders the need to seek additional and/or new evidence. This process is especially useful in that it helps to decrease blind acceptance or formulation of stereotypes, and thus fosters children's self-management skills.

The following objectives are concerned with ways in which children learn to formulate and test hypotheses:

1. Children will demonstrate a growing ability to formulate hypotheses on the basis of evidence.
   a. Using direct observation of children and adults in many settings, children will make statements about ways people change the natural environment.
   b. After seeing pictures of and reading about ways people use language (pictured symbols, written and spoken words, gestures), students will write a statement in their own words about the reasons why human beings use language.
   c. Given an isoline map showing levels of air pollution over a given area, a map of the same scale and area showing population density, and a map of the same scale and area showing industrial activities, children will generate hypotheses about the relationships evidenced by the maps.
2. Children will demonstrate a growing capacity to suggest ways in which a given hypothesis can be tested.
   a. Given the statement "Children develop skills as they grow older," students will identify ways in which the hypothesis could be tested.
   b. Given the statement "Human beings have beliefs about what is good and bad," children will describe ways in which the hypothesis could be tested.
   c. Given the hypothesis "People use resources in different ways, depending on their technology and needs," children will describe ways in which the hypothesis could be tested.

Imagining

Imagination is one of the most significant components of children's mental life, and it is also an aspect of thinking that we suppress more

frequently than cultivate (Ojemann 1968). Imagin-tion and fantasy go together; and it is "reality," not fantasy, that should concern schools--or so goes the argument (except in special classes, such as creative writing or dance). Maybe this attitude would be correct if fantasizing were simply a means of self-expression, but it is not. Fantasizing is a powerful tool for understanding the world. By imagining alternative possibilities about the way things might be, we transform mundane, commonplace, nonproblematic bits and pieces of existence into problems to be solved and mysteries to be explored. Thus, cultivation of children's imagination should be an explicit part of a skill-development program in social studies.

The major task in encouraging children to use their imaginations productively is to help them build an increasing capacity to propose alternative possibilities for existing realities. Then children should analyze the implications of the imagined possibilities. Such experiences might include imagining the environment as it might be in the year 2500, and then considering what things they might like or dislike about their imagined environment. They might then be asked to come up with ideas about ways people might inhibit development of negative characteristics by changing their present behaviors. Children can imagine alternatives to historical outcomes or mentally trade places with real or imaginary persons. They can project what life would be like without particular rules (e.g., those regarding running in the halls, speed limits for cars, waiting one's turn in line) and, by doing so, come up with some good reasons for having those rules. The possibilities for exploratory or problem-oriented imagining are limitless, enriching, and enjoyable.

The following objectives suggest ways in which children can build an increasing ability to imagine alternative possibilities for existing realities:

1. Children will demonstrate a growing capacity to propose alternative possibilities for existing realities.

    a. Children will tell stories imagining themselves as one or more objects in a photo showing a tree full of ripe and unripe fruit, birds, squirrels, flowers, a boy looking at the tree, sun, sky, clouds.

b. Given a historical account of a conflict between groups, children will write stories imagining themselves as members of each group.

c. Children will imagine making some change in the natural scheme of things on the planet and write about the potential effects of this change.

Evaluating

This process calls for children to make judgments about such things as the goodness or badness, accuracy or inaccuracy, and desirability or undesirability of selected phenomena. The process also calls for children to solve problems, seek answers to complex questions, or select courses of action that are appropriate in terms of selected criteria. Evaluations can be applied to one's own behavior or that of others, to the appropriateness of data for a given purpose, and to the countless other dilemmas faced daily by people of all ages. Evaluative thinking is among our most-fundamental thought processes, since opportunities to make judgments abound for youngsters and adults alike. A good social studies program can help children refine and develop the process so that it is characterized by creativity, rationality, clarity, and explicitness.

Children demonstrate an increasing capacity to make evaluations as they become able to generate multiple, rather than single, alternatives in order to explore a question or solve a problem. What is hoped for here is that children will resist thinking polemically and instead develop a commitment to seeking creative answers to questions and creative solutions to problems. It is often tempting to think in terms of either/or choices when, in fact, this temptation may limit access to better ideas. Children can learn that when they are faced with a state of doubt, frustration, or confusion they can move out of that state most productively by first generating a "laundry list" of tentative answers or potential solutions. Each of these can, in turn, be pondered in terms of personal values or other criteria until the list is reduced to alternatives that can be explicitly defended.

These steps can be applied in a variety of situations, ranging from the need to solve a serious personal problem to the question of which

topic to select for a research paper. The evaluator attempts to clearly define the question or problem and then brainstorms the multiple possibilities that he or she might pursue. Each of the possibilities is then evaluated in terms of criteria suited to the task until a decision is reached that the evaluator can defend in an explicit and clear manner. This type of evaluative practice, in addition to fostering creative problem-solving behavior, can assist students in moving out of the state of helplessness sometimes associated with a problem. Brainstormed alternatives are not necessarily "good" alternatives that the evaluator will have to live with. However, generating them allows the production of definable options that can be considered rationally at a later time. Productivity of this type often is more desirable than living with a problem without attempting to deal with it, or than solving a problem without exploring all possible solutions.

A second way in which children evidence an increasing ability to make evaluations is by demonstrating (and requiring from others) a commitment to making rational judgments. Rational judgments, in this context, are characterized by emotional commitments congruent with the value(s) a person holds. An evaluation is nonrational to the degree that it involves an emotional commitment to a course of action, institution, or policy that either is unrelated to a person's values or is actually destructive of these values.

In other words, rational evaluations are grounded, on the one hand, in a clear image of the values a person seeks to realize and, on the other hand, in an accurate perception of reality. In contrast, nonrational evaluations are grounded in a false consciousness of the values that are most important to the person and/or in false perceptions of reality. Nonrational evaluations tend to result from efforts to satisfy personality needs or from the desire to comply with the expectation of important reference groups.

To judge something to be good or bad because such a judgment satisfies an ego need or is congruent with the values of important reference groups is to evaluate nonrationally. To judge something to be good or bad because there is "good reason" to believe that it is supportive of one's own values--even though such a judgment fails to square with what one wishes were the case or with what one's reference groups deem to be true--is to evaluate rationally.

A simple example may be helpful: Suppose that an election is imminent, and person A is evaluating the candidates. Person A discovers that candidate X promises to work for legislation that is congruent with the values that A holds. Person A does not especially like candidate X's personality, however, and A's family doesn't like X at all. Additionally, several of A's friends have already indicated that they are voting for candidate Y. A's choice, if based on rational criteria, will ignore irrelevant emotions and the opinions of others. Rather, his choice will be based on what values he perceives the candidate to hold and whether the candidate is the best person for the job. All irrelevant criteria will be ignored.

Instruction aimed at developing the capacity to make rational evaluations should incorporate detailed attention to distinguishing information that is relevant to a judgment from information that is irrelevant. Opportunities for making distinctions of this type may arise as children attempt to settle differences of opinion or encounter decisions to be made about individual or group activities. Further opportunities can be developed by pursuing questions that evoke value judgments. (What do you think about X's actions in a given historical period? Is this a good law? Why do you think that? Did the character in the story do a good thing? Why do you think the action was desirable?) Obviously, in addition to eliciting statements from children which can be used to distinguish relevant factors, such questions emphasize the role of knowing one's value positions on given questions.

A third way in which children demonstrate an increasing capacity to make evaluations is in their ability to perceive that choices affect people differentially. An evaluation based on specific criteria, arrived at via rational and creative processes, may be satisfactory from the evaluator's point of view, but it may evoke negative reactions from others. A child may decide, for example, to take a shortcut across someone's yard. The decision to do this may arise from his concern about being late for school or for an appointment--a behavior incongruent with the child's values. The evaluation becomes more complicated, however, as the decision maker considers how the householder might feel about the use of her lawn as a path. Thus a final decision would follow an evaluation based on

a complex set of value judgments. Learning to consider the pros and cons, to both oneself and others, of a particular choice can be built into many school experiences. Whenever a judgment must be made, children can be asked to identify all the individuals or groups that might be affected by the judgment and describe how those people might feel about it.

A fourth way in which children demonstrate an increasing capacity to make evaluations is in their growing ability to do so in an explicit and reflective manner. This skill subsumes (a) the ability and desire to express explicit criteria used to make a judgment and (b) the ability to identify and seek observable indicators of the presence of the explicit criteria needed to make the judgment. For example, suppose Don and Mary are being judged as candidates for student council representative. Good evaluation will be based on the following specific criteria established by the interested parties: (1) The representative should have good school attendance (specific criterion), measurable by the percentage of days the candidate was present (observable indicator). (2) The representative should be up to date on class assignments and demonstrate satisfactory achievement (criterion), measurable by checking with the candidate and teachers (indicator). (3) The representative should be able to state opinions clearly and courteously for maximum input at meetings (criterion), measurable by the candidate's participation in discussions during classes (indicator). (4) The representative should be willing to go along with a considered decision by the majority of students (criterion), measurable by the candidate's previous behavior following class decisions (indicator). In this example, the children have established that they value certain criteria, and their appraisal of the candidates will be based upon the indicators for each of the criteria.

The learning objectives that follow reflect ways in which children can be helped to develop their skills in evaluating. Implied in all of the instructional examples are steps in which children state explicit criteria for their choices.

1. Children will show a growing capacity to use rational criteria for making evaluations.

    a. Children will evaluate alternative plans for the use of classroom space and make a choice on the basis of explicit criteria that they are able to defend.

b. Children will evaluate different ways of reacting to anger-provoking situations by stating the advantages and disadvantages (to self and others) of each reaction.

c. Children will generate, evaluate, and select explicit and defensible reasons for advocating a particular position in a debate or round-table discussion.

2. Children will perceive that a given action may affect people differently.

a. Using a picture showing one child watching another ride a tricycle across a bed of flowers, children will identify the people who might be affected by this action and tell how those people might feel about it.

b. Given a statement that a city council has passed a law prohibiting walking dogs in the park, children will identify the people who will benefit and people who will not benefit from this law.

c. After reading a case study about the possible extraction and distribution of oil from a given site, children will evaluate alternatives (no oil vs. extraction via one of several alternative routes) from the viewpoints of the following people: fuel consumers, conservationists, local residents, and fuel company representatives.

Self-Management Skills

The self-management skills identified and discussed here may, in other sources, turn up under the umbrella of citizenship or social skills. No matter what name is used, however, these are skills that help people relate to others effectively and cope with existing social conditions. There is a decided affective dimension to these self-management skills; that is, they are related to attitudes, to emotional orientations, and to the ways people interact with one another.

Neither a classroom teacher nor a parent would be very satisfied with a "Johnny" who could recite the Golden Rule and Bill of Rights with complete accuracy but who consistently infringed on the rights of those around him. Unfortunately, we have often been more successful in giving our children cognitive knowledge than in improving the ways they relate to the world. We are more successful in teaching our children the tenets of a free society than in developing their capacity to act on those principles. One study that focused on this problem found "that belief in free expression is taught only as a slogan, not as a generalizable principle, and that children therefore do not learn to apply it to concrete situations" (Zellman and Sears 1971, p. 119). These findings were gleaned from a program for teaching political conflict management to fifth through ninth graders. As a result of this study, the authors concluded that "teaching a more sophisticated view of conflict [conflict management skills, etc.] can produce both more accepting attitudes toward conflict and greater tolerance for civil liberties" (Zellman and Sears 1971, p. 134). The self-management skills identified here are designed to give children such basic competencies for democratic citizenship.

One of the major goals of education for effective participation in a democratic society is that of developing self-esteem and a feeling of efficacy in children. Political socialization research has consistently affirmed that this kind of self-perception is fundamental to active citizenship. If an individual feels worthless and ineffective, he or she will perceive that there is nothing to be gained by becoming involved.

Self-esteem cannot be "taught." Rather, it flourishes or withers depending on the environment, or climate, in which a child grows. In a

social studies program, that climate is the content--and the manner in which it is presented. The pluralism of American society and the diversity of mankind should be presented in a positive way, so that children from a broad range of backgrounds and heritages can proudly identify with the people they find in their books.

Children's self-esteem will be enhanced if a teacher treats their world with respect. The social studies curriculum should reflect the belief that the social experiences of childhood constitute a legitimate focus for study. After all, children experience role conflict, social change, and economic choices--even as senators, industrialists, and teachers do. Why not introduce these concepts in a framework in which real understanding can be achieved--in the context of the child's own experiences? By seeing children like themselves portrayed in textbooks--taught by adults, written by adults--students should get the message that children are important (which, of course, is translated: "I am important!").

Finally, we know that self-esteem develops hand in hand with increased competence and feelings of efficacy. Self-confidence can be promoted by a carefully structured skills program in which children are assigned tasks at which they can succeed while increasing their competence.

Children's social and political efficacy can be greatly enhanced by devoting time in the curriculum to fostering self-management skills. Each of the self-management skills identified here has been carefully analyzed in an attempt to better understand what specific, discrete actions and/or perceptions are called for. Once we know what behaviors we are seeking, learning experiences can be designed to promote each of these capacities.

Before explaining the individual self-management skill categories, it may be useful to discuss briefly the rationale behind the selection of these particular skills. As noted earlier, these are skills that help people in relating to others effectively and in coping with given social conditions. The concept of *relating to others effectively* means being able to develop friendships, work with other people, and communicate; but it also means much more. It implies the ability to understand, appreciate, and recognize as legitimate the wide range of human experiences--current, past, and future. The development of these capacities is enhanced through the growth of perceptions and orientations that enable people to escape

from rigid, restricted perspectives. To this end, the subsequent discussion treats egocentric and ethnocentric perceptions, stereotyping, and the ability to empathize.

Our children may need guidance in developing their skills to handle such social conditions as diversity, change, ambiguity, and conflict. Thus, this section also focuses on the nature of these conditions and on means of helping children cope constructively with them.

By giving concerted attention to fostering these self-management skills, schools will be fulfilling their mandate to promote the development of good citizens.

Decreasing Egocentric Perceptions

Egocentric perception is the unconscious assumption that one is the center of the universe and that others see him/her in the same way. Thus, if a person perceives his/her own actions to be good, peaceful, generous, or benevolent, others will recognize the same qualities. When others fail to share this assumption, they may be judged morally deficient and undeserving of respect and concern. People with egocentric perceptions see enhancement of their own narrow interests as the sole criterion for deciding what is good.

The first steps toward decreasing egocentric perceptions are recognizing the existence of perspective and projecting oneself into alternative perspectives. Child-development research has shown that the ability to recognize and describe alternative perspectives is, to some degree, developmental. Until children reach a given level of development, they are incapable of recognizing that other people experience the world differently than they do. However, by the time most children reach elementary school age, they are beginning to shed this developmental "handicap"--that is, it appears to be within the realm of their cognitive capabilities to recognize the existence of perspective. However, this does not mean that their awareness of perspective will automatically continue to develop, especially if one considers the full continuum of meaning attached to the term--from simple physical perspective to complex sociopsychological perspective. It is a relatively simple exercise to imagine oneself standing where another is standing and describe the view

from the person's eyes. It is a far more complex task to imagine the emotions and thought processes of another person whose heritage and existential context are different from one's own. Yet both situations call for essentially the same skill--the ability to handle perspective--and, therefore, children need many opportunities to practice it.

Exercises for developing the ability to recognize physical perspective might include having children draw a table as seen from above, below, the end, and the side. Or they might be asked to describe what someone facing the window sees in contrast to what someone whose back is to the window sees. The capacity to recognize emotional or psychological perspective might be developed by having children write diary entries for a young boy and an old man who had experienced the same event, or role-play a Masai tribesman caring for his cattle.

Children need to learn to accept alternative perspectives as being legitimate explanations of the differing perceptions of others. The ability to do this grows out of the recognition of perspective. The individual who has had repeated opportunities to associate with others who "see" the world differently will be more likely to accept the legitimacy of diverse perceptions.

While it may not be possible for all children to experience this kind of variety in their everyday lives, they can experience it vicariously by reading stories and case studies of people from other cultural backgrounds. Through such learning experiences, children become increasingly able to make such observations as: "That is beautiful to that girl because she lives in that society, but in our society we wear our hair differently and think that is beautiful" and "I'm used to city traffic so it doesn't scare me. But I can see why my friend is afraid to cross the street when she comes to visit us. She lives in a small town where there is hardly any traffic." These observations may seem superficial or simplistic, but the child who is capable of such perceptions is developing perspectives that facilitate adult cross-cultural communication. Competence in this area is becoming more important as global mobility increases, and it is especially important for leaders who guide cross-national organizations and negotiate international economic, political and military relationships.

Considering (and acting in response to) the interests and welfare of other individuals in addition to those of one's self is a vital dimension

of liberation from egocentric perceptions. The selfish person is a social cripple. Neither an individual nor society ultimately benefits from selfish behavior. The selfish child is soon labeled as such by other children and in turn is discriminated against and ostracized. Adult property owners who don't participate in community-improvement efforts may see their property values go down. It is ironic that, because of the complex interrelationships that characterize our society, people who consider only their own welfare and act without consideration of others are likely to be the ones hurt the most by their behavior.

The following objectives postulate ways of decreasing children's egocentric perceptions:

1. Children will evidence a growing capacity to recognize the existence of perspective and to project themselves into alternative perspectives.

    a. Children will be able to sit in the center of the room and identify in turn (from a list given by the teacher) things they would be able to see and things they would not see if they were standing, first, in front of the room with their backs to the wall and, second, in the back of the room with their backs to the wall. (This exercise may need to be preceded by asking the children to actually take these positions and tell what they can see.)

    b. Children will write an essay describing a typical city scene as it might look to a boy reared in that city and to a boy who has never before been to a city.

    c. When studying the growth of labor unions, children will be able to describe the different perspectives of unions held by labor and management people.

2. Children will evidence a growing capacity to accept alternative perspectives as being legitimate explanations of the differing perceptions of others.

    a. When discussing a story about a family in a rain forest of South America, the children will do so without disparaging the family's "strange" ways. Instead, they will be able to identify situational reasons for culturally different

behaviors and ideas. (The children made pets of the snakes because they were used to having snakes around and knew which ones wouldn't hurt you. A lot of people here are afraid of snakes because there aren't many around and we don't know much about them.)

b. Children will be able to explain why classmates' proposed solutions to social problems differ by citing variations in personal experiences, values, and interpretations rather than by pointing out some "flaw" in another's personality.

c. Children will be able to explain differences between our current perception of the solar system and the pre-Copernican perception by looking at the kinds of instruments and information available then and now.

3. Children will evidence a growing capacity to consider and act in response to the interests and welfare of others.

a. When asked to suggest how window seats on a field-trip bus should be assigned, children will propose a method that is fair to all.

b. After studying proposed changes in the neighborhood surrounding their school, children will develop a chart designating the benefits and drawbacks of the proposed changes for all the groups affected, including themselves.

c. When debating proposed changes in laws governing fishing in international waters, children will consider the welfare of nations other than their own.

Decreasing Ethnocentric Perceptions

Ethnocentric perceptions are similar to egocentric perceptions; however, whereas egocentricity involves one's relationships to individuals, ethnocentricity involves one's relationships to groups. Ethnocentric perception is the view that one's own group is the center of everything; all others are scaled and rated with reference to it. Thus, the individual tends to think of the actions, customs, institutions, and ideologies of the groups to which he/she belongs as being superior to the actions and beliefs of outside groups. Such a person uses enhancement of his/her own

group's narrow and short-range interests as the sole criterion for deciding what is good.

Decreasing ethnocentric perceptions are evidenced by children's growing capacities to make and prefer statements about their own groups that do not imply a standard by which all others are judged. When little boys recognize the fallacy in such a statement as "Boys are better than girls because they are tougher," they are shedding a type of ethnocentric perception. When children question such a statement as "Americans are better than anyone else because . . . ," they are working their way out of an ethnocentric perception. It is important that children have a sense of pride about the groups to which they belong, for out of this pride comes personal commitment and good citizenship. But there is a fine line between constructive attachment and destructive fanaticism, and the ability to maintain this delicate balance is important. Out of such a balanced perspective comes the ability to perceive changes that could improve one's own group, as well as a respect for other groups which may lead to healthy intergroup cooperation.

Decreasing ethnocentric perceptions are evident in children's growing capacity to make and prefer statements about other groups which do not use their own groups as standards. All children need to learn to perceive the legitimacy of other groups, even though those groups may be quite different from their own. (Just because our class does something one way and the class next door does it another way doesn't mean they are wrong--just different! Just because in our country we do something this way and in another country they do it that way doesn't mean they are wrong--just different!) In both cases, it may well be that "our" group could be judged objectively to be "better." But the concern here is that objective standards should be applied, not the subjective standard of "What we do is best, and, therefore, anyone unlike us is necessarily inferior."

Finally, children need to learn to consider and act in response to the interests and welfare of others' groups in addition to those of their own. (Note that the goal is mutual well-being, or considering the interests of both one's own group and those of others.) Here again, the complexity and interlinked nature of human relationships require this

kind of orientation. The welfare of each of us depends on the welfare of all of us.

Curriculum materials that include descriptions of a broad range of human groups will go a long way toward decreasing children's ethnocentric perceptions. If all groups are treated respectfully and accurately, children will have an opportunity to recognize the legitimacy of different ways of behaving and thinking. Fortunately, many elementary social studies textbooks and media materials deal with a broad range of divergent societies.

The learning objectives that follow illustrate how children's ethnocentric perceptions can be decreased:

1. Children will demonstrate a growing capacity to make and prefer statements about their own groups that do not imply a standard by which all other groups are judged.
   a. After setting up criteria by which to judge school playground equipment, children will be able to evaluate with equal objectivity their own school's equipment and another's from pictures showing each.
   b. After setting up criteria for evaluating communities as places to live, children will use these to make both negative and positive statements about their own community.
   c. After analyzing newspaper accounts of a federal health care program, children will identify both strengths and weaknesses in the program and use data about similar programs in other countries to suggest means of alleviating the weak aspects of the program in this country.
2. Children will evidence a growing capacity to make and prefer statements about other groups which do not use their own groups as a standard.
   a. After seeing a movie about family life in another cultural setting, children will discuss these family experiences without making negative evaluations based on "how we do it."
   b. When evaluating the "success" of other societies, children will use such criteria as "happiness of the people," and "efficiency in using natural resources" rather than their own society's normative standards.

c. When evaluating alternative historical accounts, children will be able to distinguish an unbiased account of Iroquois life from an obviously biased version.

3. Children will show a growing ability to consider and act in response to the interests and welfare of others' groups in addition to those of their own group.

a. Children will generate a list of rules to follow on a field trip to a museum which will help ensure that others visiting the museum will not be inconvenienced.

b. Given the problem of planning for the use of a new school playground, children will ensure that all classroom groups have equitable access to areas and equipment.

c. When participating in a simulation of community action, children will vote on approving a park for a neighborhood in which they don't live, even though its approval would mean that real estate taxes in all residential area would be raised.

Decreasing Stereotypic Perceptions

Stereotypic perception is the use of universal and closed generalizations about or characterizations of a group, process, social institution, society, or ideology. Such statements as "Tomwanians are all big eaters," "Lawyers are shysters," "Pacifists are cowards," "Pacifists are courageous," and "The American family is going to the dogs" are all stereotypic.

There are two main reasons for breaking down stereotypic perceptions. The first is simple: Stereotypes are not true. If you search diligently you can generally find an exception. (Way back in the bushes, under a boulder, lives one puny little Tomwanian who is *not* a big eater. She prefers *very* small beetles to those huge lizards that everyone else relishes!) The second reason is that they can get you into trouble. Stereotypes are beliefs. People act or behave according to what they believe. If a man believes that all lawyers are shysters, he may end up serving a 20-year prison term for something he didn't do because he insisted on serving as his own legal counsel.

These observations suggest two strategies that can be used effectively to help children avoid stereotyping. One strategy is to have students test stereotypic statements in order to determine whether they are true. Such statements as "Boys are better at math than girls" and "Women are better cooks than men" can be easily tested for validity. If children practice testing stereotypes for which data are readily available, they will soon become suspicious of all stereotypic statements, even those for which testing data are not accessible. Another strategy to help children avoid stereotyping is to focus on the possible effects of holding stereotypic perceptions. (If you believe that dogs don't bite, what could happen to you? If you believe that all drivers obey stop signs, what could happen to you if you acted on that belief?)

The examples used here are relatively benign stereotypes, which probably are the best kind to begin working with. The teacher who has laid a sound foundation, once he/she is convinced that the children are mature enough to handle them, can move to far more detrimental stereotypes--those that can cut to the quick of the human psyche. However, the basic strategies remain the same: Ask (a) Is it true? and (b) What could happen if you believe it?

Children's increasing capacity to avoid stereotypic thinking is evidenced in their ability to use and prefer such qualifying statements as "some of" (instead of "all of") and "sometimes" (instead of "every time"). In order to recognize the need for such verbal limitations, children should participate in the types of learning experiences outlined earlier. Raths et al. (1967) offer other excellent guidelines for strategies. One method they suggest is to code students' papers to call attention to both the generalizations and the qualifications used in their written work.

Another indication of decreasing stereotypic perception is children's ability to use and prefer tentative characterizations of perceived phenomena, showing their recognition that the state of the phenomena (and/or the viewer's perception of them) is subject to change. For example, such statements as "Current scientific research tells us . . . " and "When I was younger I thought . . . but now I think . . . " indicate decreasing stereotypic perceptions. This aspect of avoiding stereotyping is closely

related to the ability to recognize and cope with change. It is part of a perspective about the restricted nature of phenomena that is necessary for developing a nonstereotypic orientation toward the world.

The learning objectives that follow are concerned with decreasing children's stereotypic perceptions:

1. Children will evidence a growing capacity to use and prefer qualifying statements that restrict the scope of the characteristics of phenomena.

   a. After listening to a story about two groups of children who have trouble getting along with one another, children will be able to tell what is wrong without using such statements as "Girls are nosy!" and "Boys are mean!"

   b. Given lists that include both restricted and stereotypic statements, students will identify the stereotypic statements and suggest strategies for testing them.

   c. Children will be able to identify stereotypic statements and rewrite them to make them qualified and tentative. For example, after viewing a film about a given society, children will identify the stereotypic references in statements about that society, point out what is wrong, and rewrite the statements with appropriate qualifications. ("The X tribe always wears flat hats" becomes "In the movie we saw, some people in X tribe wore flat hats.")

2. Children will evidence a growing capacity to use and prefer tentative characterizations of perceived phenomena, thus indicating their awareness that both the state of the phenomena and the viewer's perception of it are subject to change.

   a. After conducting a survey of their own food preferences and those of their parents, children will discuss food preferences in tentative terms. (Now I can't stand spinach, but maybe when I grow up I'll like it. A lot of adults do.)

   b. Given a list of paired descriptive sentences with and without qualifications (At the time I visited Boston, I found it to be a dirty city; Boston is a dirty city), children will be able to explain which statement in each set most fairly represents reality.

c. On the basis of information gained from a study of the history of relations between two ethnic groups, children will identify the conditions that led to changes in the views these groups held of each other. They will then generate and support hypotheses about future relations between these groups.

Increasing the Ability to Empathize

Empathy is the capacity to "step into another's shoes" and, accordingly, perceive the world as others perceive it. It is the ability to sympathetically imagine how an action, institution, or event appears to persons in a different social or situational context. This ability is fostered by curriculum materials that use dramatic first-person accounts of events and realistic portrayals of people living in circumstances historically and/or geographically different from the children's environment. Role-playing experiences offer excellent opportunities to help children develop the capacity to empathize. Other devices include having children write diaries and letters from the perspective of another person in another place and time, participate in simulation games, and develop a newspaper for a community at another time and/or place.

The ability to empathize is evidenced by children's growing capacity to describe accurately the thoughts and feelings of others. Research indicates that this ability is developmental, and that the process is more difficult than simply describing what other people see from their perspectives (Flapan 1968). Part of the reason for the difficulty of the process may be that it requires at least two fairly complex skills--making direct observations and drawing inferences. In this case, we are asking children to perform the basic operations involved in making observations and inferring. Specifically, we ask them to draw inferences from the outward manifestations of what is going on inside people. The more removed these people are from the children's personal experience, the more difficult this task will be for them.

Another indication of the growing capacity to empathize is avoidance of pejorative explanations of behaviors different from one's own. Resistance to making and accepting pejorative observations is built up through conscious and repeated efforts to feel what another feels and

think what another may be thinking. Students need repeated experiences--first hand and vicarious--in hearing about the thoughts and feelings of people with different backgrounds. In the classroom, this can be accomplished by using stories, case studies, and first-person accounts.

The increasing capacity to empathasize is also evidenced by children's growing ability to explain why they might think, feel, and act the same way as another, were they in the other's social and situational setting. This ability grows out of the recognition that behavior is learned from those around us and shaped by the circumstances in which people find themselves. Being openly friendly to strangers may be appropriate in a small town but considered dangerous in a big-city ghetto. The issue of slavery was perceived one way by a large plantation owner in the South but quite differently by a Quaker farmer in Pennsylvania.

Note that the ability to empathize has nothing to do with morality; the fact that situational factors may legitimately account for a certain behavior does not mean that behavior is morally justifiable. However, the ability to perceive these factors is important in developing mutual respect between parties whose views may differ. Mutual respect provides a context in which moral issues can be faced.

The following objectives imply strategies for developing children's abilities to empathize:

1. Children will demonstrate a growing capacity to describe accurately the thoughts and feelings of others.

    a. Children will be able to role-play characters in social contexts increasingly removed from their own experiences. (For example, a child their own age facing problems they are likely to experience, a child their own age in another cultural setting, an older child facing problems they are likely to face in years to come, an older child in another cultural setting, an adult whose experiences parallel those of their parents, an adult in another cultural setting.) Background material for each of these role-playing episodes would be provided through stories and films.

b. Relying on background information from their texts and other references, children will write hypothetical diary entries for a pioneer traveling west in a wagon train. In doing this they will show their awareness of the effects this experience might have had on an individual person.

c. After studying a unit on the major religions, the children will role-play young people discussing with their families the possibility of entering the ministry or religious service.

2. Children will evidence a growing ability to avoid pejorative explanations of behaviors different from their own.

a. After participating in a unit in which they learned games played by children in different parts of the world, children will explain in nonpejorative terms why a new boy who came from a distant place might not know the rules of the everyday games they play.

b. Given two accounts of people in the same cultural setting, one of which contains pejorative terminology, the children will rate the neutral version as the "fairest" or "best."

c. In writing reports of ceremonies of differing primitive tribes, children will avoid pejorative explanations for behaviors which are unfamiliar to them.

3. Children will evidence a growing capacity to explain why they might think, feel, or act the same way as another, were they in the other's social and situational setting.

a. After hearing a story or seeing a movie about people in another place and/or time, children will discuss why those people live as they do and whether they think they would lead the same kind of life if they were members of that group.

b. After seeing a movie depicting life in a different cultural setting, children will describe what they would be doing if they lived there and how they would behave differently.

c. After studying the votes of city council members in a simulation, children will role-play council members and identify the reasoning for and values behind their votes. They will then evaluate council members' votes in terms of what they would have done in their places.

Developing Constructive Attitudes Toward Diversity

The mobility of our society has brought the broad range of human cultural and physical diversity within the experience of all of us. Visitors from abroad flow in and out of our communities. We travel, we move--across the country and around the world. If we stay put, the world comes to us through the media and through the neighbor who just returned from Japan. Children go to school with others whose heritage and experience is very different from their own. Children in today's classrooms will experience diversity to a degree never before possible in human history. They must be helped to develop the ability to deal constructively with diversity in physical characteristics, behavior, and culture.

Children must learn that diversity is inevitable and natural. This knowledge grows out of a basic understanding of how the world works. Differences in physical appearance can be traced to inherited traits. (Basic information about genetics is usually part of the science and social studies curricula.) Differences in behavioral characteristics can be traced in part to the fact that people learn from other people and in part to the physical environments in which people live. Thus, people who regularly interact with one another in a given place are likely to share common behaviors, and these are likely to differ from the behaviors of other interacting individuals in another location.

Children must learn to respond to diversity by defending or promoting desirable differences and condemning and reducing undesirable differences. Desirable differences enrich the human condition, while undesirable differences impoverish it. The worldwide differences in availability of food present quite a different issue than the range of physical characteristics in the human family. Children need experience to enable them to be rational in their approach to diversity and, therefore, able to establish defensible criteria for judging diversity.

For example, young children can be asked to solve such problems as the following: (a) Little children have the sandbox and swings to play with, while older children have the slide and monkey bars. How is the play equipment different? How is it the same? Why is it different? Is it good/fair that it is different? (b) The older children in the

neighborhood always chase the little ones away from the new play equipment. The little children have to use the old and broken equipment. How is the equipment different? How is it the same? Why is it different? Is it good/fair that it is different? (c) Why are the differences in (a) okay and those in (b) not very fair?

Older children can be shown tables depicting illness/disease distribution among various socioeconomic segments of the community and asked: How does access to health care differ? Who gets better care? What might be some reasons for this? Is this good/fair? What is your community doing to ensure more-equitable access to health care? What other things could be done?

Still another dimension must be considered in helping children develop a constructive attitude toward diversity: They must be taught to recognize the moral complexity inherent in diversity and to seek humane solutions for these moral dilemmas. Can a person who has never had the opportunity to learn tolerance be condemned for intolerance? Does ignorance make intolerant action less painful for the victim? The answers to these questions are not obvious. Nor is it easy to know when to support diversity and when to support convergence. (For example, there is the old argument about whether a socialistic state, by erasing potentially damaging inequities in certain areas, takes away the incentives necessary for individual and societal advancement and well-being.) Children growing up in this complex world must have early learning experiences that will help them recognize moral dilemmas and seek humane solutions.

The objectives that follow are related to developing constructive attitudes toward diversity:

1. Children will demonstrate a growing capacity to accept diversity as inevitable and natural.

   a. After taking a census of classmates' pets, children will discuss differences in care and feeding in the light of the different needs animals have because of their varying body size and structure.

   b. After watching a learning demonstration by two people who have learned the same skill from two other people, children will draw parallels between these divergent outcomes and cross-societal diversity in behavior patterns.

c. After studying three different societies, children will identify diets as one example of a behavior area in which differences result from both availability of resources and learned preferences.

2. Children will evidence a growing capacity to respond to diversity by defending or promoting desirable differences and condemning or reducing undesirable differences.

a. After selecting pictures showing players on a baseball team exhibiting different skills, children will tell why it is necessary for a team to have players who are good at doing different things.

b. In a role-playing situation, children will counter the staged suggestion that a new child should be excluded because he is "different" by making positive statements about how he can make valuable contributions to the group.

c. Given maps showing alternative plans for the development of a community, children will choose as "better" the one that provides more people with adequate access to vital community services and pleasant residential areas. Following their selection, the children will write essays identifying the benefits to the whole community of ensuring the greatest possible equity in the distribution of resources.

3. Children will show a growing ability to recognize the moral complexity inherent in diversity and to seek humane solutions for such moral dilemmas.

a. After reading a story about an old man who wanted only adults (no noisy children) living in his neighborhood, the children will role-play the old man in such a way as to show they know why he feels as he does. They will then role-play and evaluate actions they could take to change the old man's ideas about children.

b. In a discussion of dress requirements in different schools, children will evaluate school uniforms as "bad" (in that they inhibit self-expression and are esthetically boring) and "good" (in that they camouflage inequities in

socioeconomic background and promote a sense of school identity and loyalty).

c. In studying major world religions, children will identify sources of the conflicts that have occurred when people of different religious faiths have come together. They will then evaluate the actual resolutions to some historical conflict situations and suggest how unsatisfactory resolutions might have been handled differently.

Developing Constructive Attitudes Toward Change

Children must learn to deal with the personal life changes they will experience as well as with the rapid and extensive social changes which characterize this age. All social indicators point to the likelihood that our children will have to cope with even more change in their lifetime. It is imperative that children be neither frightened by nor enamoured of change. If frightened, they will be incapable of accepting changes over which they have no control or of monitoring changes that are potentially manageable. On the other hand, if they welcome change for its own sake, they will be oblivious to the potentially harmful consequences of some changes.

To avoid either extreme, children must be given learning experiences that help them develop a constructive attitude toward change. They must learn to recognize the existence of change and to perceive it as inevitable and natural. Very young children can profit from learning experiences in which they gather examples of ways they have changed and probably will change. The former task can be done in cooperation with parents, who can supply photographs, baby clothes, and favorite toys. The latter can be accomplished by having each student interview older children and adults to see how they have changed since they were the child's age. Of course, in addition to treating change through time (longitudinal change), learning experiences should deal with the kind of change that accompanies a shift in setting or situation. (If you moved from the city to a farm, how would your everyday activities change? Why?) These experiences should lay the foundation for perceiving change as inevitable and natural.

The ability to defend and promote desirable change and condemn or impede undesirable change is another dimension to dealing constructively with change. Too often we Americans promote change for change's sake. (Tear down that old building; put up this new one. Throw out that old curriculum; here's a hot one just off the press.) However, the ecological limits of our life space, our confrontation with the consequences of dwindling resources, our periodic flirtations with economic catastrophes, and the mistakes that result from premature curriculum decisions--all these should serve as fair warning that we must take a more rational approach to change.

Children must learn to look for indicators of both positive and negative change and develop the ego strength and sense of responsibility needed to effectively promote or resist change. Vicarious experiences with change and opportunities to practice evaluating changes can be provided through the simulation games and case studies that abound in social studies curriculum materials. An alert teacher will soon discover that the local community offers many opportunities for children to apply their skills of evaluating proposed changes. (How will the proposed new shopping center affect our community? The school board is trying to decide whether or not to close Central School; what would be good and bad about this, and how can we find out? What if we took away all the swings in the park--what might be good and bad about that?)

Another way children exhibit a constructive attitude toward change is by recognizing that changes have ramifications--a change along one dimension will cause change somewhere else. This is a critical perspective for all of us to achieve if life on this planet is to be satisfying as opposed to simply tolerable. This generation is beginning to learn that individuals, communities, and nations cannot afford to act without considering all the consequences of their actions. But only after repeated practice in identifying and considering the impact of change will this thoughtful approach become second nature.

By exploring such questions as "What would happen if the water supply dried up in our community?" and "What if we had no cars?," it will become apparent to children--if the teacher prods them to examine a variety of possibilities--that a change that first appears to have little effect

actually has extensive effects. Other devices that can be used are land-use maps on which children experiment with alternative locations for industries, businesses, and housing and study the possible effects of each suggested change. Note that these experiences call upon children's imagining skills as well as on the skills of evaluating and hypothesizing.

Finally, children need to learn to recognize the moral complexity inherent in change and to seek humane solutions for such moral dilemmas. The moral issue is becoming increasingly critical as human beings acquire the knowledge and technology to effect profound changes in every dimension of the human experience. We have the power to change barren deserts to fertile gardens, to alter the genetic codes of different species of life (including our own species), to shift whole populations from preindustrial to postindustrial ways of living almost overnight, to change the courses of rivers, and to alter climatic conditions. Finally, we must not forget that we have the power to totally change the face of the earth through nuclear weaponry.

This power to cause change, coupled with the fact that changes can have significant consequences, makes it imperative that we instill in children a proper respect for change. That is, they need to learn not act impulsively in the face of proposed change. They need to be aware of the extent to which change can be controlled and willing to put in the effort required for control. Teachers, therefore, should provide many experiences in working through the moral dilemmas inherent in change, so that the ability to handle change becomes part of the repertoire of social skills of all citizens. Thus it is important that after a simulation has been run, the debriefing should include an opportunity to explore questions about values, and the issues treated in case studies should include value questions.

The following objectives are concerned with developing constructive attitudes toward change:

1. Children will demonstrate a growing capacity to perceive change as inevitable and natural.

    a. After drawing pictures of themselves as they looked as infants and toddlers and as they are today, children will point out that they have changed and show some of these changes.

b. Using pictures of farming in the 1800s and today, children will be asked to describe how farm machines have changed and cite the major reasons for the changes.

c. Children will make up a front page for a newspaper in their own community 100 years ago which shows the changes that have occurred since that date in social, economic, political, medical, ecological, and other areas.

2. Children will evidence a growing capacity to defend and promote desirable change and condemn or impede undesirable change.

a. While visiting a park, the children will discuss changes that could improve the playground. (What equipment is in good repair and seems to be often used? Therefore, should it remain? What equipment is in disrepair and seems unused? Should it be fixed or removed?)

b. Working in small groups, the children will draw up plans of action for their group's participation in a citywide clean-up campaign.

c. After doing research into alternative proposals for changing the laws governing international fishing waters, children will be able to determine the positive and negative outcomes of each and select the better proposal.

3. Children will evidence a growing capacity to recognize the ramification of change.

a. Children will accurately role-play a person being yelled at and, alternatively, being talked to calmly and rationally, and explain how reactions vary according to another's behavior.

b. Children will demonstrate key changes which would be likely to occur, and explain why, when role-playing the following question: What would happen if the water supply in our town suddenly went dry?

c. After studying a land-use map of a city, the children will be able to predict how a change in routing traffic through the area would be likely to change settlement and business-development patterns.

4. Children will show a growing ability to recognize the moral complexity inherent in change and to seek humane solutions for such moral dilemmas.

   a. After hearing an unfinished story about two children who are fighting over changing the rules of a game, children will be able to identify why some of the suggested rule changes would benefit one child more than the other and propose alternative rules that would be more equitable.

   b. Given drawings of two different park plans, students will explain why children probably would prefer the one and elderly people the other, and then suggest a plan that would better meet both groups' needs.

   c. Following a study of urbanization, children will write diary entries for a hypothetical person who left a rural area to move to the city and describe the personal losses and gains that would result from this change. Using their classmates' diary entries as data, children will suggest things that could be done to improve life in the city for newcomers.

Developing Constructive Attitudes Toward Ambiguity

What we know depends on our past experiences, our intelligence, and the technology we have at hand to uncover "truth." Since each of these is always limited and usually changing, we are caught in a dilemma: We are never absolutely sure of anything; nevertheless, we have to act, on the basis of the best information available. Some people, finding this condition intolerable, assume one of two destructive postures: (a) they refuse to acknowledge the ambiguity and declare that they know the truth--they have the final word--or (b) they recognize the ambiguity yet cannot act because they don't know the truth, don't have the final word.

We can help children avoid both pitfalls and develop a constructive attitude toward ambiguity by helping them perceive that ambiguity is inevitable and natural. Teachers and parents can do a great deal in moving children toward this perception. Excellent models are provided by (a) adults who can respond to a question honestly and easily with an "I don't know"; (b) teachers who make a point of providing resource/

reference materials that offer different accounts, interpretations, and data about a given event; (c) teachers who help children evaluate the strengths and weaknesses of mass media, of responses to questions, and of data they collect through direct observation; and (d) parents who discuss political and social issues in a questioning, open atmosphere with and in the presence of their children. Furthermore, of course, the study of history can give students insight into the shifts in human knowledge and in our assumptions of what is true.

Second, we must aid children in developing their capacity to tolerate ambiguity--not just simply recognize that it exists, but relate to it effectively. Such tolerance is evidenced in the ability to accept the best answer currently available, knowing that it may not be the final answer. It is evidenced in the ability and willingness to change actions and opinions when new evidence comes along. It is evidenced in the ability to generate alternatives, weigh each according to the information at hand, and choose from among them. And it is evidenced in the willingness to continue working on a problem or research project in the hope that a better solution may turn up.

It is difficult to design specific lessons or identify specific lesson objectives to promote tolerance of ambiguity. A few are provided here. We believe that teachers can best achieve this goal in the context of the total learning experience--by prodding children to seek alternatives; being openminded; accepting and even encouraging conflicting interpretations of events, poems, and news articles (though always demanding rational evaluation criteria); refusing to be intimidated by not knowing an answer; and being openly willing to search for answers *with* the children.

The following objectives postulate some ways to develop constructive attitudes toward ambiguity:

1. Children will evidence a growing capacity to perceive ambiguity as natural and inevitable.

    a. Given a black-and-white photo and a color photo of the same scene, children will be able to identify information provided by the color picture which is not available from the black-and-white print. (Apples are ripe; the ground is covered with green grass.)

b. At the end of a unit on major religions, children will be able to cite a religious dietary law as one example of a moral code about which people disagree.

c. Children will construct a time line giving dates, kinds of instruments available for acquiring information, and "scientific" beliefs people had at each time. By doing this, children will learn to identify ways in which knowledge and technology are related and to describe how a shift in technology leads to a knowledge shift.

2. Children will develop a growing capacity to tolerate ambiguity.

a. While listening to the taped sounds of familiar settings, children will identify the settings, giving reasons for their answers. During a follow-up exercise in which the sounds of each setting are accompanied by pictures, children will evaluate and, if necessary, revise their original decisions. (It sounded like honking car horns, so I thought it was a city street scene. But now I see that these sounds must have come from those trucks trying to get into the factory gates. Now I hear the factory sounds, too.)

b. Children will be able to generate alternative hypotheses, given examples of several circumstances. For example, "There is water on the sidewalk because . . . (it rained last night; the sprinkler was turned on; a bucket of water was spilled; someone popped a water balloon)."

c. In a decision-making simulation, children will be able to generate several alternative actions, suggest the negative and positive consequences of each, evaluate each alternative on the basis of projected consequences, and make a decision based on this evaluation.

Developing Constructive Attitudes Toward Conflict

A world that is diverse, changing, and ambiguous is also conflictive. Children who learn to manage conflict effectively in their everyday social lives will be able to transfer that skill to managing conflict on the national and international level.

A constructive attitude toward conflict is developed by helping children perceive conflict as inevitable and natural. Conflict is inevitable and natural because we are separate, individual persons with unique wants and needs who live in the company of others.

Conflict, of course, can occur at any level of human interaction. Each of us is aware that we interact with ourselves; thus we often experience intrapersonal conflict. (Boy, I could sure go for another piece of that cake, but the old waistline . . . should I or shouldn't I?) Intrapersonal conflict may be benign, but it may lead to psychopathologies when the individual can no longer manage it. Parents and teachers are all too aware of interpersonal conflict among children because it often is expressed openly. At the other end of the continuum is conflict on a global scale.

The first step in learning to deal with conflict is to recognize that it grows naturally out of the human condition and out of situations in which we commonly find ourselves. Teachers and other adults can begin to help children learn to deal with conflict by helping them face effectively the conflict situations that arise in their everyday experiences. Instead of yelling "Stop that fighting!," a parent would do well to help the children analyze why they are fighting.

Children must be taught to recognize conflict as being potentially manageable and to identify and use effective methods of managing conflict. Sometimes it is most expedient to simply avoid situations in which conflict is likely to occur. At other times, in the midst of a conflict situation, withdrawal may be the only rational action. In still other situations, compromises can be worked out with the other parties involved (I'll concede this if you'll concede that). Children should have many opportunities to see adults whom they love and respect working through conflict situations. In this way, they will learn that withdrawing and compromising bear no stigma but are, in fact, legitimate and respectable alternatives.

Finally, in order to develop a constructive attitude toward conflict, children must be taught to recognize the moral complexity that exists in any conflict situation. Whether conflict is considered good or bad often depends on the scale and/or intensity of the conflict situation. Armed

conflict on an international or even national level has a terrible potential for destruction; therefore, it should be avoided. However, avoiding a conflict situation may be the worst possible decision. (For example, your failure to tell a close friend that you are angry may lead to a smoldering resentment that could ruin the relationship, whereas open confrontation might reveal a misperception on your part.) Another aspect of complexity is that it is entirely possible for each of two conflicting parties to be "in the right" and to be able to demonstrate an objectively legitimate basis for his or her position.

Simulations and case studies offer excellent opportunities for children to learn and practice conflict-management skills. One effective device is to have children role-play alternative responses to conflict situations. As the teacher leads them in analyzing what occurred in each episode, children will begin to recognize that they can exercise some control in such situations. The moral implications of alternative ways of approaching conflict should also be examined in debriefing.

The learning objectives that follow are addressed to developing constructive attitudes toward conflict:

1. Children will demonstrate a growing capacity to perceive that conflict is inevitable and natural.
    a. In discussing playground squabbles, children will avoid assigning blame to the individual children involved and, instead, cite the situational factors that led to the conflict.
    b. After reading a case study of a community pet ordinance dispute, children will be able to state the position of each interest group and tell what differences led to conflict. (The pet owners wanted their animals to be able to run and get exercise; other people didn't like the mess and noise.)
    c. Children will use newspaper reports to identify the issues and interests involved in the different positions of two opposing political candidates.
2. Children will evidence a growing ability to perceive conflict as potentially manageable and to identify and use alternative methods of managing conflict.
    a. Children will be able to tell how they would help two children in a story settle their argument in such a way that

both could be happy.

b. Given a case study about the dispute between two community groups over the location of a proposed shopping center, children will be able to suggest alternative ways of settling the dispute.

c. Children will be able to identify the major economic and political factors that led to the Civil War. On the basis of this outline, they will suggest steps that might have been taken to avoid armed conflict.

3. Children will become more adept at recognizing the moral complexity inherent in any conflict situation.

a. Children will role-play alternative ways of resolving a playground conflict and identify what might be good and bad about each alternative for each of the children involved. (Bob wouldn't like that but Jill would because . . . ; Jill would like that and Bob might, too, if . . . .)

b. Given a case study in which two community groups are at odds over the location of a proposed shopping center, children will generate alternative ways of settling the matter, evaluate each alternative in terms of benefits and debits to the community, and choose one of these alternatives to support.

c. When studying American history, the children will be able to identify the reasons for the stands taken by the Whigs and Tories and to defend both sides with equal vigor.

Epilogue

Whenever adults wrestle with the problem of providing their children with an appropriate and effective education, they must consider the context in which these children are likely to be functioning for the greater portion of their lives. A concerted effort is required to achieve and maintain this perspective, inasmuch as it seems both natural and easy to rely on one's own experiences to provide answers. The problem with the latter approach is, of course, that children have always lived out most of their lives in a world different from that of their parents. Today is no exception, except that the degree of change from generation to generation is greater now than ever before. Human beings are currently experiencing a dramatic worldwide evolution that is moving us into a global age.

> The "systemness," the "unity," the "oneness" of the modern world is evidenced in a wide variety of ways. It is witnessed in the interpenetration of international and domestic systems, with the consequent eradication of boundaries between domestic and foreign affairs. It is evidenced in the rapidly expanding volume of private or nongovernmental transactions among nations. It is seen in the growing number of both governmental and nongovernmental transnational organizations. It is manifest in the developing web of military, economic, political, and ecological interdependencies. It is witnessed in the convergence of social organizations and technologies in the world's large-scale, mass societies. And it is evidenced in the internationalization of contemporary social problems, including the management of violence, the control of disease, the maintenance of environmental health, and the promotion of economic well-being, social justice, and human rights (Anderson and Anderson 1977, p. 35).

The expanding scale of interdependence affects each of us, for we are all involved in global society in a number of basic ways.

> Biologically, we are involved in global society because we are members of a single, common species of life, and hence we share with all humanity many commonalities. Ecologically, we are involved in the world system because we are a part of the earth's biosphere, and hence inescapably linked to our planet's material and energetic structure. Culturally, we are involved in global society because we are enmeshed in the human-created environment we call culture; and in the modern world, human culture has become a global environment. The technologies, the institutions, the languages, and the beliefs that make

> up human culture link us, our communities, and our nation to people, communities, and nations elsewhere in the world. Through these cultural linkages, we influence the lives of people elsewhere in the world; and they, in turn, influence our lives. Historically, we are involved in global society because much of the culture that surrounds us is an amalgamation of technologies, languages, beliefs, and institutions initially created by members of our species who lived elsewhere in both space and time; and, conversely, much of the culture surrounding others is of our creation. Psychologically, we are involved in the world system by virtue of the fact that the world external to our nation is an object of our perceptions, attitudes, and beliefs. Reciprocally, we are the object of the perceptions, attitudes, and beliefs of others. And we and others have self-conceptions of ourselves and our relations to the world, along with perceptions, attitudes, and beliefs about relations among ourselves and relationships to the natural environment (Anderson and Anderson 1977, p. 36).

This global perspective has guided the selection and treatment of the skills discussed here. Each of the self-management skills was selected with an eye to giving children competencies for functioning in an interdependent world. Similarly, information-acquisition and processing skills take on particular significance in a global context. Our children will have to be able to handle a great deal of complex information if they are to be effective citizens in a global age.

Preparing children to function effectively at a global level need not be an overwhelming task. But it is a challenging task, and we can't afford to take it lightly. At the very least, we must submit each of the dimensions of the curriculum to rigorous analysis in an effort to identify and evaluate goals and processes. This paper is one attempt at such a rigorous analysis of skills development in social studies.

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Additional Sources

Listed below are several selected articles and books which will give additional help in building a sound skills-development program in elementary schools. Sources have been selected to represent each of the major skills categories identified in this paper. For documents indexed in the ERIC system, ED numbers have been provided.

Abrams, Grace, et al. *Handling Conflict and Aggressive Behavior in the Classroom*. Portland, ME: J. Weston Walch, 1977. This booklet deals with the psychological causes of conflict and aggressive behavior in typical classroom situations and suggests how students can help in resolving conflicts. Available through World Without War Bookstore, 67 East Madison, Chicago, IL 60603 (31 pp., $3.00).

Abrams, Grace, and Fran Schmidt. *Peace Is in Our Hands*. Philadelphia, PA: Jane Addams Peace Association, 1974. This is a resource unit for teachers on handling aggression nonviolently, empathizing with others' feelings, identifying with others in the human family, thinking of Earth as a spaceship, looking at causes and effects of

war. For grades 1-6. Available through World Without War Bookstore, 67 E. Madison, Chicago, IL 60603 (91 pp.; $4.00).

Anderson, Charlotte C., and Barbara J. Winston. "Membership in a Global Society: Implications and Instructional Strategies." *Journal of Geography* 76:1 (January 1977), pp. 18-23. The focus of this article is on developing a global perspective among elementary students, with emphasis on development of information-acquisition skills, information-processing skills, and self-management skills. Specific instructional strategies are included.

Askow, Eunice N., and Karlyn Kamm. "Map Skills in the Elementary School." *Elementary School Journal* (November 1974), pp. 112-121. This article contains an excellent treatment of systematic map skills instruction and level-by-level suggestions for development of representation, location, and measurement skills. The organizational framework presented here is an aspect of the Study Skills component of the Wisconsin Design for Reading Skill Development, prepared with the support of the Wisconsin Research and Development Center for Cognitive Learning.

Chesler, Mark, and Robert Fox. *Role-Playing Methods in the Classroom.* Chicago: Science Research Associates, 1966. This is an excellent teaching resource that contains both theoretical perspectives and specific guidelines for using role-playing.

Deming, Basil S. "Sequencing Intellectual Skill Development in the Social Studies." *Social Studies* 67:2 (March-April 1976), pp. 63-66. EJ 135 205. A model for sequencing intellectual skills through the use of learning hierarchies is provided in this article, along with ideas for applying the model to social studies education.

Dolgin, Anne R. "How to Match Reading Materials to Student Reading Levels. Part 1: Fry's Graph and the Diagnostic Survey." *Social Studies* 66:6 (November-December 1975), pp. 249-252. EJ 128 494. The author argues for the importance of teaching reading in the social studies and provides a method for determining readability of materials and techniques for evaluating students' reading levels.

Epstein, Charlotte. *Affective Subjects in the Classroom: Exploring Race, Sex, and Drugs.* Scranton, PA: Intext Educational Publishers, 1972. The teaching suggestions in this book are directed mainly toward the middle and upper grades. It contains excellent strategies for helping students explore their own values and relate effectively to others.

ERIC/ChESS. *Looking at "Back to Basics."* Boulder, CO: ERIC Clearinghouse for Social Studies/Social Science Education, 1976. This publication consists of interviews with three prominent educators about what the "back to basics" issues mean for social studies educators. It was produced in response to concern on the part of parents and educators about the increased emphasis on developing skills in the traditional study areas (reading, writing, and arithmetic).

Fair, Jean, and Fannie R. Shaftel. *Effective Thinking in the Social Studies*. 37th Yearbook of the National Council for the Social Studies. Washington, DC: NCSS, 1967. This classic volume offers eclectic treatments of the thinking process and suggests teaching strategies for developing thinking and tasks for evaluating thinking.

Feeley, Theodore M., Jr. "How to Match Reading Materials to Student Reading Levels. Part 2: The Cloze and the Maze." *Social Studies* 66:6 (November-December 1975), pp. 252-257. EJ 128 495. This article suggests two methods for helping social studies students develop better reading skills.

Ferguson, Roy, and Jon Schoor. "Seeing Is Believing: Visual Communication in the Social Studies." *Social Education* 40:5 (May 1976), pp. 274, 280-281. This article provides ideas for using student-made visual media for historical and community investigations, news shows, advertising campaigns, and other activities. Instructional experiences are designed to help children "acquire the all-media literacy necessary for effective participation in modern society."

Hanvey, Robert G. *An Attainable Global Perspective*. New York, NY: Center for War/Peace Studies, n.d. This highly literate, insightful piece identifies and discusses five dimensions of a global perspective.

Hawkins, M.L. *Skill Development: Maps and Globes, Social Studies for the Elementary School*. Proficiency module no. 8. Athens, GA: University of Georgia, Department of Elementary Education, 1972. ED 073 984. This self-instructional teacher education module is designed to increase teacher competence in developing social studies reading skills, map and globe skills, and thinking skills.

Hawkins, Michael, and Elmer Williams. *Interpreting Data: Social Studies for the Elementary School*. Proficiency module no. 4. Athens, GA: University of Georgia, Department of Elementary Education, 1972. ED 073 985. A self-instructional module, this focuses on developing teacher competence in helping children apply specific thinking tasks to prepared sources.

Hoffman, Alan J. "A Case for Using Survey Techniques with Children (with Some Reservations)." *Social Education* 39:7 (November-December 1975), pp. 489-492. EJ 126 876. This article explores the value of sampling attitudes and offers specific suggestions for teaching elementary school children to hypothesize, construct and administer questionnaires, and analyze results. It contains good ideas for developing questioning skills and dealing constructively with stereotypic perceptions.

Intercom 71 (November 1972), 73 (September 1973), 75 (Summer 1974), and 84/85 (November 1976). Published quarterly by the Center for Global Perspectives of the New York Friends Group, Inc., *Intercom* provides classroom tools, ideas, and resources for teaching about concepts with global implications. Each title in the series is a self-contained teaching unit ready for classroom use.

Issue 71, "Teaching About Spaceship Earth: A Role-Playing Experience for the Middle Grades," contains materials for conducting a simulation in which children play the roles of

passengers on a spaceship who must make crucial decisions about how to use limited resources.

Issue 73, "Teaching Toward Global Perspectives," contains suggested lessons for the elementary grades which focus on interdependence, imagining, and decreasing ethnocentric perceptions.

"Teaching Global Issues Through Simulation," issue 75, includes a general discussion about the utility of simulations along with an adaptatior of Barbara Ellis Long's *Road Game*, which gives players insights into the concepts of competition and cooperation.

Intercom 84/85, "Education for a World in Change: A Working Handbook for Global Perspectives," is one of the best sources for understanding the rationale and philosophy behind the global education movement. A combined issue written by David C. King, Margaret S. Branson, and Larry E. Condon, it is a "must have" for any teaching resource shelf.

Kurfman, Dana, ed. *Developing Decision-Making Skills*. 47th Yearbook of the National Council for the Social Studies. Arlington, VA: NCSS, 1977. Kurfman treats traditional social studies skills in the context of their relationships to decision making. Chapters focus on thinking skills, skills needed to acquire information, reading skills, and group action skills. Included are valuable instructional examples and sequencing considerations pertinent to developing these skills.

Lippitt, Ronald, Robert Fox, and Lucille Schaible. *The Teacher's Role in Social Science Investigation*. Chicago, IL: Science Research Associates, 1969. This book gives specific guides for directing elementary school children in conducting their own social science inquiry. It includes observation techniques and strategies for developing question-asking and interviewing skills as well as guidance for developing children's skills in working in groups.

Lunstrum, John P. "Reading in the Social Studies: A Preliminary Analysis of Recent Research." *Social Education* 40:1 (January 1976), pp. 10-18. EJ 130 270. This is a review of current research into the nature and extent of reading problems that impair learning in the social studies.

Morse, Horace T., and George H. McCune. *Selected Items for the Testing of Study Skills and Critical Thinking*. Bulletin no. 15, National Council for the Social Sciences. Washington, DC: NCSS, 1971. ED 059 121. This bulletin deals with the basic considerations for developing a skills program, including ideas for diagnosing levels of skills development, instructions for developing skills, and suggestions for evaluating skills development.

Prutzman, Priscilla, et al. *The Friendly Classroom for a Small Planet*. Handbook of the Children's Creative Response to Conflict Program. New York, NY: Quaker Project on Community Conflict, 1977. This handbook contains exercises in communication, cooperation, and conflict resolution for middle graders. Available through World Without War Bookstore, 67 E. Madison, Chicago, IL 60603 (150 pp., $5.00).

Ritt, Sharon Isaacson. "Using Music to Teach Reading in Social Studies." *Reading Teacher* 27 (March 1974), pp. 594-601. EJ 094 468. This article provides suggestions for using songs to teach reading skills, social studies concepts and attitudes, and information about historical and contemporary periods.

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Van Til, William, et al. "Back to Basics--With a Difference." *Educational Leadership* 33:1 (October 1975), pp. 8-12. EJ 138 723. This is a discussion of the "back to basics" movement and its advantages and disadvantages.